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BONES AS MANURE.

As we have had frequent inquiries as to the manner of using, and as to the virtues of bone-dust as a manure, we transcribe the following chapter from Stephens' "*Farmers' Guide*," a book replete alike with scientific and practical information. As this work was edited in this country by the late lamented professor *Norton*, with a view of adapting it to American agriculture, and was written by a gentleman of large experience as a practical farmer—one who combines science with practice, its teachings are entitled to the more consideration.

The use of bones as a manure, was viewed by the late Sir *John Sinclair*, as the most important discovery which had been made for many years, as by means of that discovery and the improvements connected with it, it would put an end to the necessity for those large importations of grain, which had been theretofore made, to support the people of the British Empire, and render them, in a great measure, independent of foreign supply. Had the *supply* of bones been commensurate with the demand, in all probability, it would have enabled the English people to dispense altogether with the importation of grain.

The honor of the origin of the discovery, that bones were an excellent manure, we learn from Sir *John Sinclair*, and *Dr. Darwin*, was made about the year 1766, by Anthony St. Leger, Esq.,—some 86 years past,—and that from that period, up to 1828, gradually gained favor. From the latter year, up to the present period, its popularity as a fertilizer of the soil, has rapidly increased, so that now, the demand for bone-dust is only circumscribed by the supply. Those who are practically acquainted with their value as manure, look upon the importation of every ton of bone-dust as being equal to the increase of ten tons of wheat in the products of British agriculture—a result, whose importance, in so densely a populated country as is Britain, cannot be too highly appreciated.

We know of no manure that we would so soon rely upon as a lasting improver of the soil, when used in compost with ashes, salt and mould, or when mixed with and left in heap for two or three weeks with about one-fourth the usual quantities of barn-yard manure. If *prompt* action rather than permanent effect be desired—which should not be the case—the mode of producing this effect is to reduce them to a pulp with dilute sulphuric acid, and then mixing them to dryness, with ashes and mould.

"Bone Dust.

"Bone-dust has now completely established itself as a manure; and I believe that, with the exception of farm yard dung, there is no substance we know upon which we may place more implicit relinnce, in one or another of its states, as a fertilizer of the soil, not even excepting guano.

"One of its most valuable properties as a manure, is its *durability; and in this respect it is superior to farm-dung and guano.* Bones even in their reduced state, when applied in large quantities, as 1½ ton and upwards on the acre, as is done by the farmers of Cheshire, will evidence their existence as a manure after the lapse of 20 years. This result arises from the slowness of the decomposition of the organic matter in the soil. I pulled off 4 acres of Turnips raised with bone-dust, and 4 acres adjoining, in the same field, which had been raised with 15 loads of farm yard dung to the acre; and the crop was not only better after the bone-dust than after the dung, but the crops that followed in the rotation—namely, barley, hay, pasture, and oats—were all better in their respective years.

"Thus *Marchand* found the bones of a bear that had been buried for an indefinite time at a shallow depth—where moisture and air may have been supposed to have exercised their influence very actively—not to have differed very materially in composition to other bones of a bear that had been buried deeply, except in animal matter, as is shown in the following table:—

	Bones of the bear buried.	
	Deep.	Shallow.
Animal matter, ...	16.2	4.2
Phosphate of lime, ...	56.0	62.1
Carbonate of lime, ...	13.1	13.3
Sulphate of lime, ...	7.1	12.3
Phosphate of magnesia, ...	0.3	0.5
Fluoride of calcium, ...	2.0	2.1
Oxides of iron and manganese,	2.0	2.1
Soda, ...	1.1	1.3
Silica, ...	2.2	2.1
	100.0	100.0

"That substance must be a valuable manure which resists decomposition for a long time, while it imparts nourishment to the roots of plants as they require it."

Bone is a dense substance, as will be seen by the specific gravity of different kinds as determined by Dr. Thomson:—

Osphemeris of sheep, . .	2.0345
Tibia of a sheep, ...	2.0329
Ilium of an ox, ...	1 8533
Human os humeri, ...	1.7479
Vertebra of a haddock, . .	1.6350

It thus appears that bones of sheep are denser than those of oxen."

"Bones contain a large proportion of water, the quantity of which is greatest when the animal is young, and the interior of the bone spongy, varying from 33 to 15 per cent. in the former, and from 20 to 30 per cent. in the latter case, in different animals."

Bones are composed of organic and inorganic matter, the former consisting of fat and cartilage, the latter of earthy matter. The inorganic matter varies in the bones taken from different parts of the body. When the fat has been removed, the proportion of earthy matter to cartilage is as follows, according to the experiments of Dr. Stark:

	Earthy matter.	Cartilage.
Bones of the ox contain,	64.5	35.5
" " horse "	67.7	35.2
" " pig "	64.7	35.3
" " birds "	66.2	33.8
" " fishes "	66.1	32 9

"In the earthy matter the bones of different animals do not thus vary much. The earthy matter consists chiefly of the carbonate and phosphate of lime; and Dr. *Ure* says, "that the bones of the ox are three times richer of the phosphates of lime and magnesia than those of man, and hence we may conclude that as manure they are more valuable."

"When the bones are boiled, a large proportion of the fat and cartilage pass into the water. The fat is skimmed off the surface of the water, and is used by the candle-makers; the water when boiled down, makes size for the stiffening of certain kinds of cotton goods. The bones after being boiled, contain more water than they did before, and when ground into dust, make as good manure as when fresh, according to the opinion of some. But it is evident that the loss of the fat and cartilage must deteriorate the value of the bones as a manure for general application. It is probable that the additional water obtained by the boiling may facilitate the decomposition of the bone-dust in the soil, and thereby gives to the boiled bones a factitious value."

"The *organic* parts of bones, when heated to redness in the open air, are dissipated, and the earthy matter is left in the form and bulk of the original bone. The calcined bones, which are very brittle, and easily reduced to powder, get the name of *animal charcoal*, but its proper name is *bone-black*, which constitutes a valuable manure in some cases."

Bones, when subjected to the action of steam heat, equal to a pressure of 35 lbs. to the inch, become spongy and brittle, and may be reduced easily to powder. This process has lately been introduced to notice by Mr. Blackhall, of Edinburg, as a means of reducing bones to a powder in a more economical manner than by the powerful machinery which is necessary for the construction of a bone-grinding mill. But the analysis of Dr. Anderson make it appear that steaming deprives bones of much animal matter. Thus in two instances, steamed bones gave of

Water,	12.66	13.86
Animal matter,	27.37	19.90
Bone-earth,	59.97	66.24

And that of bones in three states, gave from—

	Inch Bones.	Bone dust.	Entire Bone.
Water,	10.00	10.39	14.89
Animal matter,	41.88	42.60	37.04
Bone-earth,	48.12	47.01	48.17
	100.00	100.00	100.00

Hence the loss of animal matter is as 27 to 42; and hence, also, if crude bones cost £4 the ton, steamed bones would cost £5, 6 s. 8d. besides the expense of steaming. It has been more recently stated that steaming bones at a pressure of 50 lbs. to the square inch, reduces them to a state of pulp. That the steaming process will deprive the bones of most of their organic matter, is evident since the French have long been in the practice of steaming them for two or three days in continuance of the making of soup."

It is the opinion of both *Sprengel* and *Liebig*, that it is the earthy portion of the bone, and particularly phosphate of lime, which is alone useful as manure in bone dust. Some experiments may have warranted such a conclusion; but others, on the other hand, would lead to the conclusion, that it is only the organic part of bones which is useful as manure. Such results would depend upon the degree in which the soils experimented on at the time had been previously supplied, from other sources, with organic or inorganic matter. "The most striking change," as professor Johnston observes, "undergone by bones buried at the roots of trees, was the large loss of organic or animal matter they had suffered. The relative proportions of the phosphate and carbonate of lime had been comparatively little altered. The main effect, therefore, produced by bones, when buried at the roots of trees, as particularized in the table, [relative to bones of the bear buried,] and their first effect, in all cases, must be owing to the animal matter they contain—the elements of the animal matter, as it decomposes, being absorbed by the roots with which the bones are in contact. He who candidly weighs the considerations above presented, will, I think, conclude, that the whole effect of bones cannot in any case be ascribed either to the one or the other of the principal constituents. He will believe, indeed, that in the turnip husbandry the organic part performs the most permanent and most immediate useful office, but that the earthy part, nevertheless, affords a ready supply of certain inorganic kinds of food, which in many soils the plants could not otherwise easily obtain. He will assign to each constituent its separate and important function, being constrained at the same time to confess—that, while in very many cases the *earthy part of bone applied alone* would fail to benefit the land, there are few cultivated fields in which the *organic part applied alone* would not materially promote the growth of most of the artificial crops."

"The comparative value of bones and farm-yard dung, was ascertained by Dr. *Henry R. Madden*. This is his analysis of both:—

Bone-dust.	
Water, . . .	11.3
Organic matter, .	57.9
Inorganic matter, .	30.8
	100.00

Farm-Yard Dung.	
Water, . . .	45.535
Organic matter, .	43.565
Inorganic matter, .	10.900
	100.00

Another analysis gave of Azote in bone-dust, 1.77 per cent., in farm-yard dung 45; so that, with respect to azote, these substances stand comparatively thus, in—

	Bone dust.	Farm-yard dung.
Total organic matter,	38.50	33 565
Soluble matter,	10.20	10 750
Easily rendered soluble,	41.50	14.250
Azote, . . .	1.77	.450
Saline matter, .	55.00	10.900

Hence 1 ton bone-dust equals as regards—

Organic matter,	1 ton farm-yard dung.		
Soluble matter,	1 "	"	"
Easily dissolved do.	2.9 "	"	"
Azote,	3.9 "	"	"
Saline matter,	18.3 "	"	"

"If all the various degrees in which bone-dust is superior to farm-yard dung be added together," concludes Dr. *Madden*, "1 ton of it, equals 30 tons of dung; but as only 16 bushels of bone-dust are applied to the acre, which at 47 lbs. per bushel, weigh 7 cwt. this quantity is equal to 10½ tons of dung."

"Bone-dust is less efficacious as a manure on clay than on light land; nor does land which has been recently limed, experience the same benefit from bone-dust as land devoid, or nearly so, of lime." * *

If fresh bone-dust just obtained from the mill, is desired to be heated at once, which it should be if it is to be kept for a few months, the process is much accelerated by the addition of a little sifted coal-ashes or earth, and as much water as will make the whole mass only damp, and by turning it over several times until it is incorporated; and in 48 hours the heat will be so great that you cannot hold your hand in it. The heat will gradually subside; the mass become dry, and be in a good state for passing through the sowing machine."

"Although it is improbable that you will keep bone-dust over the year, it being more profitable to put it into the ground, yet in case you should have any left over, or should purchase a lot cheap out of season, it may be proper to let you know how to keep it in the best state until it is used. It is this: whenever you get it, you should put it on a dry pavement floor, as a damp one quickly rots it. It will heat, but not so strongly as when it was grinding, and it will heat every time it is turned, which it shou'd not be. It should not be kept in the bags, as it will soon rot them, as I have experienced, nor should it be kept upon or under a wooden floor, as it wi'l rot it; nor should it be kept near horses and cattle, as they evince a strong dislike to the smell; and horses actually become restive and troublesome on feeling the smell it emits."

"Heating has the effect of increasing the weight of bone-dust from 47 to 49 lbs. per bushel, and this increase is no doubt effected by the heating taking off the angles of the particles, and a'lowing them to come close together in the bushel. The color is also changed to blue and yellow, and on examination with the microscope, the mass contains numbers of minute insects like mites."

"The consumption of bone-dust as manure must have been great before the introduction of guano, and even in my own experience of its use it rose in price from 2s. 6d. to 3s. 6d. the bushel, on account of the increased demand, which continued to increase until the use of guano was known. It is now imported duty free, and its price has receded to the original amount of 2s. 6d. the bushel."

By a parliamentary return, the quantity of bones imported from abroad in 1847, [into England] was 29,646 tons, and in 1848, 32,582 tons, the increased 2,936 tons implying an increasing demand for bone manure, notwithstanding the use of guano."

With regard to the manner of using bones, and their effect in the culture of turnips, Mr. Stephens gives these among other paragraphs:—

"Of late it has been deemed better to use bone-dust in combination with sulphuric acid, or rather the oil of vitriol as sold in the shops, than by itself, or with farm-yard dung. The effect of the action of the acid on the bones is to reduce them to a pulpy mass which is made in this manner:—

"Mix a given quantity of vitriol with twice its bulk of water, in any convenient vessel, when the mixture will evolve a considerable degree of heat. Put into a large tub or trough double the weight of the bone-dust as of acid used, and pour the mixture of acid and water gradually, and by times, over it. An action will soon be observed arising from the escape of carbonic acid gas, and in time, in stirring the bone-dust will be entirely dissolved, and form a mass with the acid and water. The mass may be dried with riddled sawdust, dry ashes, or fine dry vegetable mould, and the granulated powder thus prepared, may be sown either by itself, or in combination with farm-yard dung with the bone-sowing machine. Uncrushed bones will answer the purpose as well as crushed, but the acid will take much longer time to act upon them."

"The material thus obtained has been called the *superphosphate of lime*, but a more *correct name* would be *sulphated bones*. It is found to have a greater power of raising turnips on clay soils than bone-dust. No doubt bone-dust operates more beneficially on light than on heavy soils, and if a substance can be easily made which will secure a crop of turnips on heavy land, it is a very valuable commodity."

"According to some experiments made by M. *Pusey*, and at his request by others, it would appear that, when bones have been fermented with coal-ashes, and even pure sand, their efficacy is stronger than in the form of dust, probably from the fermentation disintegrating the bones to the smallest degree, and thereby rendering them more easily mixed with the soil. The method of fermenting bone-dust in this manner is to mix 4 cart-loads of bones with as many of sand, or mould or sawdust in a flat-topped-heap. The bones should be thoroughly drenched with water, and the other materials moistened. In a few days, such a heat will be generated in the heap as to render it unbearable by the hand. As the outside of the heap will not be heated so much, it should be covered with sand. Whether the heat should be allowed to die out before the heap is used, is a point still unascertained, but a large heap makes better manure than a small one; so do unboiled and fresh bones than boiled or stale ones. Large bones may be reduced in this way, by turning the heap over at the end of a fortnight and watering it afresh, and at the end of a month very few whole bones will remain. Broken bones, will, of course, be more quickly reduced than whole ones."

"Should this method of reducing bones prove successful, it is a much cheaper and simpler mode of doing so than with vitriol. A farmer tried a comparative experiment for Mr. Pusey, and found that 4 bushels of fermented bones gave the same yield of Swedes as 16 bushels of bone-dust unpre-

pared, and 2 bushels of sulphated bones. Mr. Pusey found by experiment, that 8½ bushels of heated bones and sand yielded 13¼ tons of turnips; while 17 bushels of bone-dust and 4½ bushels of sulphated bones only yielded 13¼ and 14¼ tons respectively; and he also found that by increasing all these quantities one-half, no greater results were found."

COTTON CLOTH FOR HOT-BED COVERING.

PATENT OFFICE, Wash. City, Jan. 15, '53.

To the Editor of the American Farmer.

DEAR SIR—I see, in some of the back numbers of the Farmer, that you recommend oiled cotton as a substitute for glass in making *cheap* hot-beds. Did you ever try this material for such purposes during the changable weather of winter, or only for purposes of early vegetation during the spring months? I wish to make a bed in which to transplant tomatoes from the first planting in the small glass-covered hot-bed, and in which I can set them in small pots until the weather is decided, sufficiently to permit them to be turned into the ground; the bed for the plants in pots will necessarily be large; and, if the oiled cotton will afford sufficient solar light and heat, and will not permit air to pass readily through it so as to endanger, in a sudden fall of temperature, such tender plants as tomatoes, I would prefer not to incur the expense of glass. Answer by letter or in your February number, as will be most convenient to you.

I suppose that you will receive one or more copies of the P. Office Report from the Commissioner of Patents—otherwise, I would take pleasure in having a copy sent to you. R. W. J.

In reply to our correspondent we beg leave to state, that we used a hot-bed covered with cotton cloth, instead of glass, during three successive years, and that the result was highly satisfactory. In cloudy or very cold weather in the day-time, and always of nights, we kept matting, or straw, over the cotton frame, as we would have done had it been glass, and thus counteracted any sudden changes of temperature.

We have received copies of the Agricultural portion of the Patent Office Report, from the Hon. T. Y. Walsh, M. C. and the Hon. Mr. Bowie, M. C., for which we return them our thanks.

☞ SOMETHING NEW AT LAST. ☜

In the column dedicated to "*Interesting Items*," in the "Zanesville Gazette," of the 2d April, last year, we find the following:—

"*Hartwig Von Blucher*, a German, has invented a *heated roller* in Scotland, which being passed over the land burns the weeds and furnishes, in the ashes, an excellent manure."

This is certainly a new method of supplying potash, and other *inorganic* substances; but the *loss* of organic ones thereby occasioned, cannot be questioned. If the weeds were *ploughed* in, instead of being *burned*, they would, ultimately, by decay, furnish all the inorganic as well as *organic* elements of which they were originally composed; while the saving of the latter, would be so much gained to the land, and the labor and expense of using the heated roller would be obviated. The operation looks to us like paying for throwing away a valuable, if not the most valuable, portion of the manure. We despise quackery in agriculture, as much as we do humbuggery in politics, or fanaticism in religion and morals. *Ed. Am. Far.*

NUTRITIVE VALUE OF OAT-HAY.

The following letter upon the above subject, from the pen of the late professor *Norton*, will be found full of interest, and not the less so that its lamented author has passed into another state of existence; for though he sleeps now with his fathers, his writings were so marked by good sense and true philosophy, that the intelligent mind found in them pleasure as well as profit. At the time this letter was first published we read it with feelings of approbation, and cut it out for insertion, but have been hitherto prevented from doing so owing to the press of matter upon our pages. As the time for seeding oats will be coming on a pace, we seize the present occasion as an auspicious one, to give it publicity, and call the attention of our readers to it. Professor Norton, as many of our readers know, was a gentleman of profound learning as an Agricultural chemist, added to which, he was passionately devoted to the science from a conscientious belief in the vast benefits it was calculated to confer upon the agriculture of his country, and hence gave to every subject he discussed a thorough investigation. Therefore, the opinions and facts of such a man are the more valuable.

The letter originally appeared in the Albany Cultivator.

ON THE NUTRITIVE VALUE OF OAT HAY.

ANALYTICAL LABORATORY, YALE COLLEGE,
New Haven, Conn. July, 1850.

EDS. CULTIVATOR—In the January No. of the Journal of Agriculture, published by the Highland and Ag. Soc. of Scotland, I notice an article "on Oat Hay, and the relative nutritive value of oats cut green and cut fully ripe," by Dr. A. Voelcker, Prof. of Chemistry in the Royal Ag. College at Cirencester. The subject is one which has long interested me, and I call attention the more readily to the statements made here, inasmuch as Dr. Voelcker is an old friend, in whose results I have much confidence. We have worked together in the Laboratory of Mulder, where he was first assistant, and I am sure that he will benefit the cause of agricultural science, now that his whole energies are devoted to it.

The idea of cutting grain while yet quite green, and of making it into hay in the same manner as grass, is not by any means entirely novel. Experiments of an imperfect nature have been made before the present ones, with this same end in view. Some of these have perfectly succeeded, while others have, if not unsuccessful, been at least less striking in their success. We have needed in the occurrence of these unsatisfactory experiments, some general principles upon which to reconcile them if possible, or at least discover the source of error, or by means of which we might more fully attain our object of inquiry. We need also the union of scientific with practical knowledge. Upon this subject, in order to the certain determination of many points, I will copy two or three sentences from Dr. Voelcker's paper.

"On the other hand, I am convinced that practical men will remain in the dark on many of the most important points of agriculture so long as they despise the aid of chemistry, and persist in solving inquiries connected with agriculture by mere blind experimentising; by experiments I mean made without plan, or anything clearly defined and distinctly understood. If those engaged in such *random trials* would bear in mind that nature does not

give a precise answer to an indistinct question; and if they would be candid enough to believe, in all cases in which an experiment has failed to answer their expectations, that the experiment itself, or the anticipated result, must be false in principle, and that consequently the fault is their own, and not on the part of nature—a great deal of good would be effected. Unfortunately, however, most men are as quick in condemning the value of the materials used in a bungling experiment as they are eager to praise and enthusiastic in recommending every result when the experiment proves favorable to their views; and when such an experimenter has some kind of theoretical notion in his head with which the experiment can be *made* to tally, the case is still worse. In this way a great deal of harm has been done, and the progress of scientific agriculture retarded instead of advanced."

There is much of sound practical sense in the above remarks, and every person who has studied over the numerous unprofitable and wearisome discussions, which fill up many of our agricultural papers, will fully appreciate it. It is for want of knowledge as to what they are about, that the contradictory results of most experimenters are to be ascribed.

In the present case, Dr. Voelcker seems to have happily united science with sound practical views, and we consequently have intelligible and reliable statements from him.

The first point to which attention was directed, regarded the proportion of water contained in the straw and grain of the ripe and unripe oat respectively; both samples being of the same variety and taken from the same field. As might have been expected, the green oats contained most water; this is shown by the following table:

Oats fully ripe.

Per centage of Water.		Proportion of Straw to Grain.	
Straw.	Grain.	*Dry* Straw.	Grain.
38.48	20.65	57.56	46.45

Oats cut green.

53.30	28.66	65.43	34.56

I have taken the mean of the various results given, as some discrepancy appears in the single determinations. By this table, several general conclusions are indicated—

1. That the proportion of water in the unripe plant is greatest.

2. That the proportion of the *dry* straw in the unripe plant is greatest.

3. That when the plant is dry, the grain bears a larger proportion to the straw than would have been imagined; being, even in the green plant, more than one-third of the whole weight, and in the dry plant nearly one-half.

The next step taken by Dr. Voelcker, was to determine the nutritive value of his several samples. In this case regard was had only to the amount of nitrogen contained in them, that being considered the most important ingredient, in estimating any particular variety of nutritious food. He calls the body in oats which contains nitrogen, by the general name of protein; this name applying to a class of bodies that contain about as much nitrogen, and that are about as nutritious, as lean meat when it is dry.

The proportions, or per centages of protein obtained by Dr. Voelcker were as follows:

I. *Oats fully ripe—Mean results.*

Grain, 15.39 pr. ct. of protein compounds.
Straw, 8.46 " " "

II. *Oats cut green.*

Grain, 17.87 pr. ct. of protein compounds.
Straw, 11.01 " " "

No. II. was cut when the stalk and leaf were yet quite green, and the grain milky, but fully formed. They were cut at the same time, the green oats having been sown about one month later than the others.

The conclusions to be drawn from the above results are not only extremely interesting in a scientific point of view, but are of much practical importance.

1. We see in comparing the numbers in the ripe and unripe straw, that the latter contains 3½ per ct. more nitrogen than the former.

2. That the unripe grain also contains more nitrogen; this may seem a very strange result, but may be explained when we consider the fact, that the unripe oats, although they had not attained their full bulk, had received most of their nitrogenous compounds, and that the after increase while ripening, must have consisted mainly in an accumulation of starch, and other non-nitrogenous bodies.

In addition to the facts established by these analyses, it is to be borne in mind, that the unripe straw is also much richer in starch, gum, sugar and other compounds of the same nature, all of them both nutritious and easily digestible, but which are for the most part in ripening, gradually converted into woody fibre.

Here too, the larger quantity of water, which has been already shown to exist in the unripe straw, is to be brought into the account. This water helps to render the food more soluble, and more easily digestible by the animal. We find then an equal weight of the unripe straw and grain, contains *more* nitrogen, more sugar and gum, and also more water; so that while it is *more nutritious*, it is also at the same time *more easily assimilated and digested* by the animal. This last is a point of more importance than is usually imagined. Of two kinds of food containing equal quantities of nitrogen, one may be vastly superior in its effects when fed, and this simply because it can be readily digested; a large portion of the other may even pass through the body unaltered.

Dr. Voelcker gives, in addition to his theoretical results, two letters from farmers who have seen oat hay tried. One of them says, "that when cut fine, oat hay goes one-fourth farther than if the oats and straw had been allowed to ripen."

In many parts of the country, it is very difficult to produce good grass for cutting; but easy to grow quite tolerable oats, at least so far as bulk of straw and appearance of head is concerned. The grain may not fill out well if allowed to stand, but still would serve a good purpose as fodder when cut green and made into hay. There is no loss of the grain by shelling when cut in this way, and the hay would be highly relished by stock.

I have no doubt but the same system would do well in the case of rye, or other grains; hay made from them would also be exceedingly nutritive.—The facts given in the report of Dr. Voelcker, are quite sufficient to warrant my calling attention to this subject, and recommending experiments in such districts as feel the need of good winter fodder, and this of a variety that can be obtained without great expense. JOHN P. NORTON

WORK FOR THE MONTH.

FEBRUARY.

As the time has arrived in many portions of our country where our journal has an extensive circulation, for field labor, we shall proceed at once to point out such matters as may require immediate attention on the farm.

Liming and Marling.

The question is often asked us,—what is the best time to apply lime or marl to the land? Our reply invariably has been,—*any time;* the great objects, in our opinion, being to get the lime or marl, which ever may be used, on the ground, and to distribute it equally.

We hold this to be an agricultural truth, that any land which may have been long in culture, without having received a dressing of lime or marl, needs one, and for these reasons,—*first*, because, lime and marl, by their own specific gravity, sinks into the earth, beneath the plough line, and, as a consequence, gets, after a series of years, beyond the reach of the lateral roots of the plants which are their chief feeders, and *secondly*, because the crops themselves, annually, consume a material portion, which are carried off the land,—and thus is the earth deprived of its calcareous matter, and the plants grown thereon left without a supply of this element, which is so essential to their healthful growth, and to the maturation of their seeds.

Modes of Application.

There are several modes of application. Some apply lime at the time of preparing their corn ground, by sowing it broadcast over the field and harrowing it in, previous to checking off the ground for planting corn. This is a good practice, perhaps as good as any other, because, by the working of the corn the lime becomes thoroughly mixed with and diffused through the soil. In stiff clays, however, we think that it would be best to plough the land in the fall, and then apply the lime, as it would thus become more intimately mingled with the soil, than if its application were delayed till spring, and, as a necessary consequence, its action would be more prompt. Some distribute it broadcast at the time of seeding wheat, while others delay its application until the wheat plant is up, selecting a period of the winter when the ground is frozen and will not poach under the hoofs of horses and tread of the hands. The custom with many sensible, well judging farmers, is, to apply it to grass swards a year or two before they intend to plough them up. This is an excellent practice, but we think that the good effect would be increased, if, after the lime is broadcasted, a harrow was passed over the field, to be followed with the roller. These operations would open the soil, so that the lime would find its way speedily into the earth, and thus promote its earlier action, and, as a consequence, the grass would much sooner be increased in quantity as well as improved in quality.

Application of lime or marl to *thin* sandy lands we think are best done when formed into composts with clay, and left in piles, to be shovelled over two or three times, at intervals of a few weeks, before being used. This commingleme nt of the clay and lime together, would prevent the latter from sinking for a considerable time, thereby giving it the better opportunity to perform its offices upon the vegetable remains and mineral resources of such soils; besides which, it would impart to them consistency, as well as the physical power to maintain moisture, resist the evaporating influence of the sun's rays, and hence prevent the too rapid decomposition of the manure applied.

Marl, we think, is best put on the ground intended for corn, the previous fall and winter, to be broken down by the frosts and thaws of that period. It should be put on in small piles of a bushel, or half bushel, so apportioned and distributed as to render spreading easy. Marl, however, like lime, may be put on at any time upon lands deficient in the calcareous principle, and will never fail ultimately to do good. Lime forms a constituent element of almost all cultivated plants, is essential to their healthful growth, and where the land may have been exhausted of it, it must be resupplied; and, as we have said before, it is not very material how you get it there, so that you economize labor in its application. A prejudice very improperly, some years gone by, existed against *oyster-shell lime*—we combatted that prejudice as far back as 1835, and we are happy to see that a change has come over the spirit of the dreams of farmers in this regard; for we hold it, that, for agricultural purposes, oyster shell lime, or marl, is better than stone lime, as each of the former contains bone-earth, a most essential element in the constitution of nearly every plant, and an element too, that is not to be found in the latter, except in very rare instances, if the analyses of chemists are to be relied upon, and we are free to confess that we believe they, in general, are.

Quantities per Acre.

Now as to *quantities* to be applied to an acre. We have never been an advocate for large *first* applications, because, we believed less would answer every useful present purpose, and, because, the cost of large quantities were calculated to deter many from applying any; whereas, they would very readily incur that attendant upon the purchase of a small dose, if they could be made to believe, that its effects would be equally salutary for present purposes; and that the *maximum* dose could be just as advantageously applied, at several times, as at one. The quantity to be applied, must, in our view, bear a just relation to the quality and texture of the soil. Hence we are prepared to assume, that on a *stiff clay* soil that has been in grass, and which is well supplied with vegetable remains, 100 bushels to the acre may be safely and advantageously applied: on a *stiff clay*, which through a course of improvident culture may have been reduced, and where clover has not been grown, from 40 to 50 bushels is quite as much as should be put on at one time: on a *clay-mould*, which has been cultivated in grass or clover, in the course of a rotation, and where it is reasonable to expect that there are much vegetable remains, the latter quantities may be very properly applied: on a *sandy-loam*, similarly situated, the same quantities may be applied: on sandy or gravelly lands, unless they be in clover or grass, not more than 25 to 30 bushels should ever be applied at a single dressing: on such lands not in grass, in a state of exhaustion, 10, 15, or 20 bushels of lime, is as much as should be put on at a single dressing; and as we have before stated,—on such lands, either lime or marl is most judiciously applied when put on in compost with clay, say 10 double horse-cart loads of clay to whatever quantity of lime or marl that may be applied per acre.

From the *effete* nature of the calcareous matter in marl, lands will bear twice as much marl as it will of lime; indeed, thrice the quantity may be put on

with the certainty of good effects resulting therefrom, as, besides the calcareous principle existing in marl, it most generally contains much animal and vegetable matter, which, under the influence of heat, moisture and air, is speedily resolved into nutritive manures; additional to which, there is nearly two per cent. of bone-earth in most marls.

Whether lime or marl be applied, it should be harrowed in, as the sooner it is mingled with the soil, the sooner will the performance of its offices be commenced—the sooner will its effects be made manifest.

Action of Lime.

As to the question, of how lime acts?—there is some diversity of opinion,—but there seems to be a concurrence of sentiment among scientific men, as to certain offices which it performs,—and these are borne out by the observation of practical farmers. Among the offices said to be performed by lime and marl, are these. When applied in full quantity upon stiff clays, it serves to disintegrate the particles of clay and lightens the texture of the soil; while on sands, it tends to give tenacity to them. It dissolves hard inert fibrous substances in the soil, and prepares them to become the food of plants. It neutralizes the acids of the soil, unites with them, and ultimately deals them out as the food of plants, thus rendering noxious bodies tributary to their healthful growth. Lime is found, by analysis, to form a part of the vegetable structure of most plants, and hence the inference is, that it is indispensable to their healthful existence. Lime too, is said to possess the power of electricity; if such be the case, it must act as a stimulus, and like other stimulants, if not used to excess, may exert a highly friendly influence upon the constitutions of plants. These are but a few of the properties assigned to lime, and experience teaches all sensible agriculturists, that whenever judiciously applied to lands needing it, it has produced the most meliorating effects: that lands, chiefly through its means, aided by grass and clover culture, which were worn out, have been brought to a state of fertility;—seeing these things, it is no longer a matter of surprise that liming, and marling, which is virtually the same thing, has become the *fashion*, and as fashion gives tone to public and private sentiment, no one can longer doubt, that, in a few years more, most of the old fields, which now so grate upon the feelings of the patriot, will be covered with luxuriant crops. But we wish our agricultural readers to bear these truths in mind,—that without one-fourth or one-fifth of the arable land be kept in clover and grass, no progressive or permanent improvement can be effected,—that though exhausted lands require lime, yet they require animal and vegetable manures also,—that no *system* of culture can be either intelligent or profitable, that does not combine the culture of clover and the grasses in its elements,—that it is useless to lime or marl wet lands before they are drained, and that, when drained, deep and exact ploughing, and thorough pulverization, are indispensable to full and perfect success.

Oats.

In Maryland and all the States East and North of it, it is much too early to begin to think of seeding oats; but as our journal has a wide circulation in the South, where the labors of the field begin much earlier than in the region described, we feel it our duty to say that the proper time for sowing oats is, so soon as by the absence of frost, the earth can be ploughed and put in good order, as it is a well established fact, that the early sown always make the most grain, and it is equally true, that the quality is also better than that produced by the late sown.

Soils adapted to Oats.

Clay soils are said to be the best for the growth of oats, but we have known 2400 bushels raised on a field of 40 acres of *sandy-mould*; this field, however, had had the benefit of 100 bushels of lime and an equal quantity of ashes, within eight years, and *was in clover* at the time it was ploughed for oats. Clay may be the most congenial soil for oats, as this grain ranks among the potash plants, and there is more of that substance in such soils, naturally, than in soils of a siliceous nature. Be oats, however, grown where they may, if a good crop is desirable—and it always is—there must be the elements of at least moderate fertility in the soil; for oats being of rapid growth, require something to feed continuously upon. Clover-leys and grass-swards are the fields on which oats thrive best; but if they be grown upon soils exhausted, or naturally poor, such soils must be aided by moderate dressings of nutritive manure to ensure any thing like a good crop. A fine crop may be grown with an application of five double-horse cart loads of stable or barn yard manure, and 10 loads of wood's mould or river mud, per acre, provided the land receive also a top dressing of 5 bushels of ashes, and 1 of plaster to the acre; 8 or 10 bushels of bone-dust,—200 lbs of guano, or 50 or 100 bushels of marl, mixed with 10 double-horse cart loads of marsh mud and 5 loads of barn-yard manure, will each assure a satisfactory crop; but no one can reasonably expect a generous product from worn out land.

Quantity of Seed.

If the land be *good*, 3 bushels of seed, per acre, should be sown. If the land be of *moderate heart*, 2 bushels of seed, per acre, should be sown. If the land be *poor*, don't sow any oats thereon unless you previously manure it, and then your quantity of seed must be regulated by the quantity and quality of the manure applied.

Preparation of the ground. Plough deeply, leave no balks, and harrow until the tilth is fine. After your seed is in, harrow, water furrow, and roll across the furrows, and if the season be propitious, you may anticipate a just reward for your labor.

Corn growing. Upon this subject we wish to admonish our readers, not to attempt the cultivation of corn upon poor lands, unless they manure it, and that highly, as it requires to be heavily fed.

Permanent Pastures.

Those who may have been fortunate enough to have provided themselves with permanent pastures for their stock, should, early this month, sow on every acre of it, 5 loads of rich mould, 1 bushel of plaster, 5 bushels of ashes, 2 bushels of salt and 5 bushels of lime. If they have neither of these articles at command, 5 loads of wood's mould and 4 bushels of bone-earth, or 10 bushels of marl, mixed with 10 loads of marsh mud, will answer; either to be harrowed in, and the ground then to be rolled. By this treatment they will increase the product of grass at least three-fold.

To those who have no such permanent pastures, but have old wornout fields lying idle, we would recommend, to broadcast on each acre fifty bushels of lime, then harrow, and reharrow, with a loaded harrow until a fine tilth be obtained, then sow at the rate of 10 lbs. clover seed, half a bushel of Kentucky blue grass, half a bushel of orchard grass seed, and 5 lbs. of sweet vernal grass seed, per acre,

then harrow the seed in with a light garden or seed harrow, sow thereon a bushel of plaster per acre, and roll. The pasture must be left free from the ingress of stock during the first season. In the fall sow on each acre 4 bushels of bone-earth, 2 of salt and 5 of ashes. Pastures may be thus created without incurring the expense of ploughing, which will keep your animals in good condition. It would be better, however, to plough in, say 10 bushels of bone-earth, or a dressing of nutritive manure, prior to applying the lime, though the preceding plan will answer. The earlier these recommendations are carried into effect, after the frost is out of the ground, the better. A dressing of a hundred bushels of marl, per acre, will answer in the stead of the lime.

Winter Ploughing.

All stiff clays which are not naturally wet, that may be intended for spring crops, should be ploughed early this month, to allow the frost to break down their texture; but we will repeat what we have often said before, that such lands should *not* be ploughed when they are in a *wet* condition, but that a time should be selected when they are moderately moist.

Clover-leys, or Grass-Swards.

If you have a field with a clover-ley, or grass-sward upon it that you intend to put in corn in the spring, plough it up and give the frost an opportunity of killing the grubs and cut worms,—and when about to plant your corn, harrow it, and, to make the destruction of these worms doubly sure, sow on each acre of it, from two to four bushels of salt.

Fencing and Fences.

If you have not already cut a sufficiency of timber for fencing purposes, set your hands to work and complete this necessary part of your farm labors. When you have felled a sufficient number of trees to answer your purpose, have them hewed into posts and rails and prepared for use; but be sure to char the buts of all the posts you may insert in the earth—let the charring be extended at least 3 or 4 inches beyond the depth to be inserted in the ground: posts thus prepared are thrice as valuable as those that are not charred. While at fence making and mending, be sure that every panel around your enclosures are carefully examined and effectually secured. This can only be rendered certain by your *personal inspection*. Prompt attention to this duty now, will save you from both loss and vexation hereafter, while your good example will stimulate your neighbors to emulate it.

Fire Wood.

If you have not already a supply to last until next winter, you should delay no time in securing one.

Out Houses.

Out-houses, of all kinds, should be cleansed, and receive an interior and exterior coating of whitewash, as well as the fencing of your lane and garden.

Poultry Houses.

Give these a complete cleansing; clean out all the nests, whitewash the inside as well as the outside of them, and when dry, put in fresh hay—that done, white wash the planks both inside and outside; break up some old mortar for the hens to pick—if you have not any old mortar, provide them with lime where they can have free access to it; besides this, supply them with ashes and sand to dust themselves in, feed them alternately with oats, corn, and buckwheat, and you may reasonably calculate upon an early supply of eggs and spring chickens.

Sowing Clover Seed.

Sow over every acre acre of your land in wheat 12 pounds of clover seed. If the land which you have in wheat has been long in culture without having been limed or marled, you may rationally conclude that it needs a dressing of one of these minerals, so make your arrangements to give it a dressing this fall, as clover does not thrive well in lands where lime is not present. If you use lime, give to your field 50 bushels per acre, if *marl*, 100 bushels.

Sowing Plaster.

As soon as the clover begins to form their leaves in spring is the time to sow plaster over it; so, therefore, make your arrangements to give your clover field a bushel per acre—that quantity will increase the product fifty per cent.

Implements and Tools of Husbandy.

Examine these, *yourself*, and have them put in first rate order. See, too, that you have an ample supply to answer all your farming purposes throughout the season; don't wait until you want to use an article, but buy at once, and be sure to get the best, and most substantial, as it is always cheapest in the long run.

Working Animals.

Let your horses, mules, and oxen receive additional care and food; be sure that they are comfortably stabled, well bedded, well fed; that they are watered thrice a day, and curried and brushed down night and morning, and that they receive a gill of salt, or an equal quantity of salt, lime, and ashes, three times a week: they should have their food alternated every few days; corn is a good, strong, fattening food, but oats imparts the muscle or flesh to endure labor; they should also occasionally receive a pint of flaxseed meal.

Brood Mares in foal.

Don't permit these to be fed upon hay or fodder alone—give them, daily, grain also, not forgetting that oats is best both for them and the young within them, and be sure to give them thrice a week the same portions of salt; or salt, ashes, and lime recommended for the working animals,—and, if possible, let the lime be oyster shell lime.

Springing Cows and Heifers.

See that these are well cared for; that they are comfortably lodged at night, that they receive full supplies of long provender, and as their time of calving approaches near, that they receive mashes in which at least a quart of meal, half a peck of bran, or a peck of crushed cobs, form a part. Give them salt; or salt, ashes, and lime three times a week, and have them regularly watered three times a day.

Milch Cows.

If you desire flowing pans of milk, you must feed your milch cows with succulent food, and it matters not whether it be rich slops or roots; besides which, give them full allowances of good hay or fodder. Allowances too of salt, or the salt, ashes and lime, must also be made them.

Young Stock, of all kinds.

These must be well fed and cared for during this and the ensuing month. If stinted in their youth, they will lack both size and muscle. To assist in the elaboration of their bones, provide them thrice a week with a gill of the lime, salt and ashes mixture, but be certain, if you can obtain it, that the lime used is made from oyster shells, as that contains nearly two per cent. of bone earth, which will go to assist your young stock in the perfection of their bones.

Tobacco Beds.

Look to these, and for light upon this subject we respectfully refer you to the admirable *essays* to be found in our journal. We refer you more confidently to these essays, because the instructions therein contained, are the results of the reflection and practice of highly intelligent and successful planters.

Sheep.

See that these are well fed, well cared for, regularly watered and always have a bite of salt to nibble at—that their shed is kept cleanly bedded. If they are confined to ther yard, treat them once a week to pine bows to browse upon. Let the breeding ewes have a gill of meal, or the equivalent in roots, daily, in addition to their long fodder.

Breeding Sows and Store Pigs.

Attend to the feeding of these, and be sure to allow them ample materials to work up into manure. A hog is said to be a dirty beast and loves to wallow in the mire; but he delights in a clean, dry, warm bed, and thrives best when these comforts are provided him. If a mixture of charcoal, and rotten wood and ashes are kept in a dry trough to which he can have constant access, he will be his own doctor.

If the breed of hogs you have is not a good and profitable one, buy a young boar, of some approved breed, and cross your own; and while you are doing so, be sure to get a good one.

Fencing Timber.

If your supply of fencing timber is small, prepare a bed and sow yellow locust seed, preparatory to setting out a few acres to be growing for subsequent use in years to come. Don't say, "I believe I wont, it takes so long for them to grow;" but recollect, if they don't come in your time, they will in that of your children; and what carries a more holy throb to a parent's heart, than the consciousness that he is laying the groundwork of a superstructure that will conduce to his child's welfare in time to come? Nothing! Then lay the basis of a locust orchard, if the materials for fencing do not abound in your forests.

Fruits.

If you have not already growing on your estate fruit trees of all kinds, prepare to set them out this spring, as *Apples*, *Pears*, *Peaches*, *Plums*, *Damsons*, *Cherries*, *Apricots* and *Quinces*. Be careful to make choice of the best kinds, and to purchase from a conscientious nurseryman. Besides the luxuries capable of being afforded to the table by the good lady patroness, where her liege lord provides her with a good supply of fruits, he should bear in mind, that ripe fruit is among the healthiest of all things edible,—and surely, none will gainsay us when we declare, that they are amongst the most palatable.

Apple Orchard.

If the bark on your apple trees are rough and dead-like in appearance, or covered with moss, scrape them, and apply a mixture made in the proportion of 1 gallon of soft soap, 1 quart of salt, and 1 lb. of flour of sulphur. This will cause a new and healthful bark to grow on them, prove repulsive to insects, and otherwise benefit the trees. As to pruning, none but the *dead limbs* should be taken off; those cut close into the body or main branch, the wound made smooth with a drawing knife, and surface covered with a plaster made of equal parts of soft cow-dung, clay, and old mortar powdered fine,—or of equal parts of *beeswax*, *rosin* and *tallow*, either to be capped with strong sugar loaf paper, or strong cotton or linen cloth.

Corn-Husks and Straw.

Feed your stock with the first, and feed and litter with the latter. Be careful not to sell either, as every load you sell is an act of injustice to your stock, and an injury to your soil. If you have not cattle enough to consume them, get more, that you may, through them, convert your husks and straw into manure, and thereby add to your resources for fertilizing your land.

Selling Corn.

Shell your corn before you sell it, crush the cobs and feed them in mashes to your milch cows. A peck of crushed cobs and a peck of cut fodder, hay or straw, thrice a day, will keep your cows well up to their milk. This mess may be cooked enough by simply pouring boiling water over it, covering it, and permitting it to remain until cool enough to be fed out.

He that sells his corn on the cob, gives away his cobs, besides paying for their transportation to market; and where the grain is large and the cob small, gives away a part of his corn also, as such corn will yield more than 5 bushels to the barrel.

Irish Potatoes.

In lower Virginia, and the States south of it, Irish Potatoes should be planted for early use as soon as the frost is sufficiently out of the ground to admit of its being put in good order—and as this will have occurred before we shall again have an opportunity of holding our talk with our readers in those regions, we give them the hint,—that if they wish to have *early* potatoes, they must put them *early* in, and that they should not omit to give them a plentiful dose of rich manure—that they should prepare the ground well, and that when the plants first come up, they should dust them freely with a mixture of lime, ashes, plaster and salt, equal parts of each, and repeat this each time they may work them. A bushel will go over an acre of land in potatoes. This dusting should be repeated up to the time the tubers are ripening.

Equivalent Value of different kinds of Food.

The following table gives a synoptical equivalent value of different kinds of food; *albumen* representing the flesh-forming principle, and *unazotized* matter the fat-forming.—*Playfair.*

	Albumen.	*Unazotized matter.*
Peas	29	51½
Beans	31	52
Lentils	33	48
Potatoes	2	24½
Oats	10½	68
Barley Meal	14	68
Hay	8	68½
Turnips	1	9
Carrots	1½	8½

From the above table we see why pigs fed upon potatoes and barley meal soon fatten and keep in health; whereas, when supplied with potatoes only, they become fat but are unhealthy. It will also teach us that the milk of cows, from which butter is to be made, would be benefitted by mixing their food with steeped peas and beans.—*Topham.*

Great Yield of Wheat.—Mr. James R. Garrison, of Accomac, Va. raised the lest year, from one bushel of wheat, seeded broadcast, on one acre, and one-eleventh of an acre of land, sixty bushels and one peck of good clean wheat, which is equal to fifty-five bushels to the acre. This is hard to beat, if correctly reported.

WORK IN THE GARDEN.

FEBRUARY.

Every farm should have its well appointed and well stored garden. If well cultivated, it may be made the most profitable part of the farm. But independent of this consideration, it is such a fruitful source of comfort and luxury to one's family, that no man, who properly considered upon the subject, would hesitate a moment, in providing such a one as would reflect credit upon himself, and be the pride of the female members of his family.—It should have in it, *dwarf pears* of the best and most choice varieties, *Quinces*, *Currants*, *Raspberries*, *Gooseberries*, *Grapes*, *Strawberries*, *flowers* of various kinds, and all the *best kinds of vegetables*,—and in order to raise early plants, it should be well provided with hot-beds. These need not be expensively constructed, but may be cheaply made, as is shown below.

Formation of Hot-beds. Make a frame with plank 12 feet long, 4 feet broad, the back as high again as the front, to give the top a slope to the sun—make a top, fix it with leather or iron hinges,—over this nail thick cotton, which must be oiled: this done your hot-bed frame is completed. The next thing is to make the hot-bed, which can be done thus,—fork over as much horse manure mixed with litter as will answer, put it in a heap and let it remain a week or ten days; then place your frame on a nothern border facing the south, leave a few inches between the back and the fence, then put in 12 inches of dung, let it settle for a day or so, then put mould on it 6 inches deep, rake it evenly, and you may then sow your seed, as Cabbages, Cauliflowers, Broccoli, Lettuce, Tomatoes, Egg plants, &c. Pat the ground down with the back of your spade or hoe, then lower down the top to within half an inch of the front, so as to let off the steam from the dung. In mild weather raise the top in mid-day, lowering it of an evening. If the weather is very severe cover with mats, or old carpet, &c., of a night. As soon as the plants appear raise the top to admit fresh air. If the earth becomes dry, give the plants, occasionally, a little water in the warmest part of the day. Such a hot-bed frame as we have described any farm hand can make, and as its cost is trifling we do hope that every owner of a country garden, who has not done so already, will possess himself of one. One of the dimensions we have named will grow plants enough to furnish a garden half an acre in extent, if the apportionment of different kinds of plants be judiciously made.

Sowing Cabbage Seed.—Having shown you how you can prepare a cheap hot-bed, we will name the kinds to sow therein, any time between the 1st and 20th of this month, if you desire a continuous supply throughout the season, *Early York*, *Large York*, *Early Nonpareil*, *Early Vanack*, *Early Battersea*, *Early Sugar Loaf*, and the *Drumhead*. A few inches square sowed in each of these kinds will give you plants enough to carry you through the season.

Tomatoes.—Any time between the 10th and last of this month the seeds of tomatoes may be sown.

Salsafy seed may be also sown, to be drawn for transplantation to get an early supply, between the 10th and last of the month.

Egg Plant seed may be sown at the same time as the above.

Lettuce Seed.—These may also be sown any time after the 10th of the month.

Sowing Celery Seed.—Any time after the middle of this month you may prepare a part of a warm border, facing the south, and sow Celery seed in the open air. Manure the ground highly, rake fine, sow the seed, rake and press the earth down with the back of your spade.

Spinach may be sown any time after the 20th of this month, in open culture—recollect the ground must be highly manured, nicely dug and raked.

Carrots, Parsnips and Beets.—A few rows of these for early use may be sown in open culture whenever the frost will admit of spading and preparing the ground.

Early Peas.—The time to sow early peas is the moment the frost is out of the ground.

Raspberry and Grape Vines should be pruned and tied up early this month.

Flowering Shrubs may be set out as early as the ground can be worked.

Large Yield of Corn.—We copy the following paragraph from the Baltimore Sun. It was translated thither from one of the Cecil County papers, which we know not, or it would afford us pleasure to give the proper credit.

"Large Crop.—Andrew Lyson, Esquire, of this County, raised this season, 230 bushels of Corn on *two* acres, or 115 bushels per acre."

This is a very large yield—one which has not been very often exceeded—and reflects credit alike upon Mr. Lyson, and Cecil County; and we will here state, that the farmers of few counties in Maryland have done more in the way of the improvement of their lands than those of Cecil. The success of Mr. Lyson shows what may be done, and we trust it may stimulate others to follow his example. And while we thus call upon others to emulate his *example*, it is but fair that we should ask the favor of Mr. Lyson, to describe to us the character of the soil upon which he raised his corn—its exposure, depth of ploughing, manner of preparing the soil—kind and quantity of manure used—how applied—mode of cultivation, and how often cultivated,—kind of corn planted—distance of the rows apart—whether planted in hills, or drills, if in hills, how many stalks were left in each, and if in drills, how far apart the stalks were.

Such information will be very acceptable to his brother farmers, and as Mr. L. is an *Eastern-Shoreman*, we feel assured that he will take pleasure in communicating the information, as it is peculiar to the people of that glorious peninsula to be impelled by sentiments of liberality.

A still greater Yield.—The Hagerstown (Md.) Herald, says, that Mr. John Welty, of the Leitersburg District, raised 124 bushels of Corn on one acre of ground. The appeal made to Mr. Lyson is equally applicable to Mr. Welty, and we hope he will respond thereto.

The growing Wheat—The Farmer.—A subscriber in Fauquier, Va. under date of Jan. 10, in remitting his subscription for the current year, remarks:

"I continue to read the Farmer with much satisfaction and benefit; and I do all I can to induce my friends and neighbors to become subscribers.

"We have a most extraordinary winter so far; no snow of any consequence—the weather more like April than January—our pastures still good, and the wheat growing finely."

SOWING TIMOTHY IN CORN FIELDS.

PRAIRIELAND, Jan. 3d, 1853.

To the Editor of the American Farmer.

DEAR SIR:—No one who has had the good fortune to have been a reader of your very valuable paper, can have failed to observe the very important results its circulation has brought about in our agricultural community; or doubt the beneficial influence it will ever continue to exert on our manifold interests—for not only do we now welcome the "Farmer" as the diffuser of useful knowledge, but we regard its monthly visitation as we would the coming of some kind patron to cheer us on in our exertions, and "make our labor sweet;" in short, the "Farmer," with us, is the harbinger of "better times."

But my purpose at present is not to tell you what we all know and what you yourself must feel justly due to your zealous exertions; but to presume upon your generous nature, and ask your excellent advice upon a truly important subject. I have a piece of meadow land, (35 acres) which for the last five years has thrown up a great quantity of the weed commonly called North Carolina pink root; it is, as you aware, the deadliest enemy to all kinds of grasses, and takes entire possession wherever it presents itself. I have tried various means of destroying it, and spring before last took much of it up, as I thought, by the root; but in my harvest of this summer, found it as thick or thicker than ever. My purpose now is to work it in corn, for which crop it is already ploughed. Now, we all know corn to be a great exhauster, but on the other hand it will answer admirably to work out this "ill weed" and at the same time give a paying crop. The difficulty will be in getting the corn off time enough to put timothy in before it shall have become too late. I propose (for which advice I owe thanks to a neighboring farmer,) to sow whilst the corn is standing, say in August, harrow in both ways between the corn, level the hills as well as possible with the hoe, and roll when the corn has been taken off. As to the exhausting of the land, I flatter myself that a good coat of top-dressing on the young timothy the following spring, will give me a very fair crop the ensuing summer. Now, my dear sir, with many thanks for your patience, I must take my leave, hoping to hear from you in your next number. By criticising the above views and giving us your own on the subject, you will greatly oblige an amateur in the cultivation of TIMOTHY.

Replies by the Editor of the American Farmer.

1. The *Carolina Pink weed*, is, indeed, a most troublesome pest—one which, if permitted to go to seed, will in a few years obtain the mastery. We recollect, about the year 1837, that a neighbor of ours, who had taken great pains, so far as manuring and ploughing was concerned, to set a field of 40 acres in Timothy, was compelled, the second year thereafter, to plough it up, in consequence of its being overrun with this weed. At our advice he put it in corn, and gave to the corn the most cleanly culture, which was chiefly effected with the hoe and cultivator, working around the stalks with the hoe and through the middles with the cultivator. By this means he got rid of the pest, and at the last working of the corn, which was done with the *cultivator*, he passed a small one-horse harrow through the rows of corn, as close up to the stalks as possible, then sowed his timothy seed, harrowed it in very lightly, and was rewarded with a fine field of timothy, nearly exempt from the hateful pink. Subsequent to setting his field thus in grass, it was his practice, for two or three years, to carefully have his field examined every spring, and after harvest, and whenever a Carolina pink showed its head, it was pulled or cut up.

A single Carolina pink, if permitted to go to seed, will mature seeds enough to grow from 500 to 1000 plants the succeeding year; and it is thus, that this "ill-weed" multiplies and spreads itself over entire districts of country, to the great injury of the negligent farmer.

2. To destroy this pest, as well as all others, there is no crop better suited than that of *Corn*. Every time the crop is worked, the seeds, which may have been buried below the line of vegetation, is brought near the surface, and, under the influence of moisture, heat, and air, vegetate and grow, but are destroyed by the succeeding working of the corn. Its destruction, however, can only be effected where the corn is repeatedly worked, and kept so clean that weeds have no time to grow to any considerable size, and by frequently bringing the buried seeds to the surface, thereby encouraging them to vegetate.

4. Our correspondent's plan of seeding timothy at the last working of his corn, we approve of.—One of the most luxuriant and best set fields of timothy we ever saw, or expect to see, was thus seeded. But we will here remark, that at the time of preparing the field, which consisted of 20 acres, it was generously manured—the manure was ploughed in 8 inches deep, the ground was then harrowed, 50 bushels of ashes per acre spread thereon, and then cross-harrowed, so as to reduce it to great fineness of tilth; it was then rolled and laid off into rows 4 feet apart, and listed the same distance, so that the hills of corn stood 4 feet apart, affording room for sun and air. To each hill of corn a half shovelful of rich compost, in which ashes and plaster were incorporated, was given, at the time of planting. After the first working, which was done with the plough and hoe, the plough was never used; but, in its stead, the *cultivator* was kept busy until the corn was laid by. At the last working, after the ground was cultivated, the *timothy seed* was sown. When the corn was cut up in the fall, a careful hand was made to go through the field, and sow a few seeds on the corn hills, which were carefully raked in by a hand who followed him, rake in hand.

If the corn stalks were cut up as is often done, when the grain is perfectly glazed, and the stalks removed from the field, or placed by the side of the fence, and a loaded harrow passed over the field until a fine tilth was obtained, the timothy seed might be sown, and rolled in, with the certain prospect of a good stand of plants being obtained.

Our correspondent does not tell us whether, previous to fallowing his land, he manured it. Now, if he *did not*, unless his soil is a fertile one, we cannot promise him a good crop of timothy, after so exhausting a one as is corn; for timothy requires *food* to persuade it to grow luxuriantly. The *top-dressing* which he proposes to give it, may, and, doubtless, will, encourage the growth of the timothy plants, provided it have in it the elements of fertility; but unless his land be really *rich*, we would advise him to apply his compost during autumn, instead of the succeeding spring, in order that its fertilizing principles may nurture and pro-

tect the young timothy plants throughout the winter. He should be careful too, that his top-dressing does not contain the seeds of pestilent weeds. As good a top-dressing as he could give his timothy, would be, to make a *compost*, in the proportions, per acre, of

2 loads of stable manure,
4 loads of river mud, or woods'-mould,
10 bushels of ashes,
4 bushels of bone-earth, and
1 bushel of plaster.

To be made into pie, layer and layer about, to be shoveled over three times in *six* weeks, at intervals of 2 weeks apart. With such a compost for a top-dressing, he may promise himself a good crop of timothy. If he wishes his field to produce luxuriant crops, he must *repeat* this *dose* every *second autumn*, taking the precaution to harrow it in and then roll the land.

From our experience in the growth of timothy, we feel justified in saying, that it is a fallacy to expect a large yield of it from any soil, unless it be naturally rich, or is made so by heavy manuring, and that it can alone be continued in productiveness, by periodical top-dressings, composed of fertilizing materials.

EFFECT OF DEEP PLOUGHING.—A correspondent of the New England Farmer, states that:—

"A striking instance of the benefits resulting from continued deep ploughing was brought to our notice yesterday, on viewing the cultivated grounds of *A. M. Whipple*, Esquire, on the banks of the Connecticut river, near Lowell. This land was naturally a light and sandy soil. His men were engaged in gathering in the crop of hay from an extensive field, which yielded more than two tons to the acre. The inquiry arose, by what means was the crop made so abundant, on land so shallow? His answer was, *deep ploughing mainly*. That for eight or ten years past he usually ploughed *twelve inches* deep. That he put on his grounds but a light dressing of stable manure,—made no compost whatever—but relied almost entirely on the improvement of the soil, by turning the furrows deep. His crops were quite equal to those we have been accustomed to see on strong land, highly manured." * * "Similar benefits were apparent in the growing crops of corn and oats, in the adjoining lots."

REMARKS ON THE ABOVE.

That the deep ploughing of *some* land will increase the product and improve the quality of the crop grown, we do not entertain the slightest doubt; but our opinion is, after no inconsiderable observation, and much reflection upon the subject, that all *wet* lands should be thoroughly drained before being deeply ploughed. We believe further, that, after being drained, the depth of ploughing should not be increased, until time has been allowed for the drains to relieve the soil of the superabundance of water which had previously existed therein.—*Editor of the American Farmer.*

GREAT YIELD OF CORN.—We were presented on Friday last, by the hands of Nathanial F. Williams, Esq. with a sample of white corn, raised by Geo. Vickers, Esq. of Kent Co. Md.—The grain is large and fine, and the product is stated at one hundred and three and a third of a bushel per acre. This is an enormous yield, and shows good farming. The land has been limed twice with one hundred bushels per acre, and moderately broadcast with manure.—*Balt. Clipper.*

From the National Intelligencer.

BY REQUEST.

REAPING MACHINES.

I have read with much interest in my Intelligencer of the 20th ultimo, the extracts re-published from some of the English papers, on the recent trials there of different Reaping Machines; but am inclined to the opinion that, unless due allowance is made for English prejudices in favor of what is manufactured in that country, and also unless my sources of information are not reliable, though believed fully to be depended on, an erroneous impression will be given to the American reader; and that the American farmer, who may be induced to import an English reaper on the strength of these speculative reports and very limited trials, will almost certainly meet with disappointment. On these grounds we respectfully ask a hearing "on both sides."

The first trial, it appears, was between "Hussey's American machine, as made by Croskill," and "Bell's original Scotch machine." The award of the judges was "strongly in favor" of "Bell's *original* Scotch machine."

To a man of practical knowledge on the subject, and familiar with machines, both for reaping and mowing, the question naturally presents itself to the mind, on reading this report from the "Economist," if "Bell's original Scotch machine" is so superior, how does it happen that only a partial use, much less a general or common use, was made of this reaper, either in England or Scotland, previous to the Great Industrial Exhibition? The fact is, this machine was not even on exhibition at the Crystal Palace; it was unknown to fame and to the world until Yankee enterprise and ingenuity enabled the *original* inventors to improve and make it available to the English and Scotch farmer. Hussey's and McCormick's reapers had been extensively and most successfully used in this country—from ten to fifteen years—prior to the far-famed exhibition. And did not the London Times, permit me to ask, actually ridicule the idea of such a "nondescript; a cross between an Astley chariot, a treadmill, and a flying machine," being made available to reap "English corn?" What, too, permit me again to ask, was the tone of this same "London Times," and other English journals, *after* the agricultural public witnessed the execution of the American reapers? They were actually amazed, astonished at the result; a sight as NEW as it was wonderful and interesting to the assembled thousands. It was then admitted that, if the exhibition at the Crystal Palace did no other good, the valuable knowledge thus obtained in the use of these grand labor-saving machines to the agricultural interests of Great Britain was worth to the country the whole cost of it! For the proof of this, we refer to the English journals, and the reported speeches, and "toast drinkings" at their agricultural dinners.

John Bull, before the Fair, and John Bull "after the Fair," differed as essentially in opinion with regard to reaping machines as he did in respect to Yankee ploughs, Hobb's patent bank lock, and the sailing of the America. The lock was easily picked when you knew how to do it; and we have yet to learn that all the ingenuity of all the locksmiths in England have successfully picked it. It was found on trial that the light Yankee plough *would not* break; but would turn over English soil with

half the draught of their clumsy affairs, and bore off the prize over all competitors. So also with the renowned yacht race; the America was "nothing to brag of" till put in competition with English clippers; but when John signalled, "Is the America first!" The answer, "Yes." What's second?" The reply. "Nothing, there is no second"—all his fond hopes were blighted and his countenance fell; though it must be admitted he bore the disappointment like a man.

John Bull is an honest-hearted and good-natured old gentleman in the main; and, although occasionally rather given to a little touch of jealousy and self-conceit, I would not detract a particle from his real worth and merit; yet I am not disposed to give him credit for what he is not entitled to, and also at the expense of Brother Jonathan.

Being a farmer—and a farmer's thanks are tendered for your evident good wishes for their success and prosperity—I have taken great interest in these exhibitions, the previous as well as the late trials in England. My information derived from a correspondent there, and quite competent to judge, is, that *none* of Hussey's reapers used at these trials are his modern and most approved machines; but they are made in England by Englishmen, and with *their* improvements attached; and some, if not all, of which plans that have been used by Hussey, perhaps also by others, and long since abandoned.

It is perfectly evident, from the reported trials at Cirencester and in Yorkshire, between Hussey's and McCormick's machines, that the former, "manufactured by Garrett," was neither made nor worked as is the most approved plan here. No one in this country thinks of working "two horses in a line," with Hussey's reaper, and with "two drivers," one on each horse. We Yankees manage rather better.

Again, at the trial at "Keillor," the committee states that Hussey's machines [imitations with English *improvements*, they should have added,] would not cut "down hill;" and "were much too liable to choke or clog, particularly when they came in contact with any thing *green*, or lying in an angle from them, rendering it necessary often to stop the machine in order to have the teeth cleared," &c. The Yorkshire committee also states, that in Hussey's machine, "durability is not to be expected," &c. &c. Now, it is within the knowledge of the writer that one of Hussey's *American* machines has, the past two seasons, reaped over five thousand bushels of wheat, [he is advised by others of similar machines cutting considerably more in a *single* harvest,] and portions of the land being very broken and rocky, without any cause of complaint on account of choking and clogging; and also without costing a single dollar for repairs. Hundred if not a thousand of cases in our grain-growing States could be selected of the perfect success of our reapers; and some even stronger than the above. But, not to occupy too much of the valuable space in your columns, we will only refer to an additional one, the past season, as an offset to the "Keillor trials," and of a machine more particularly adapted to mowing. After cutting very heavy wheat, and oats both light and heavy, the former having with it a luxuriant growth of young timothy, and much of it full knee high, without a single "choke or clog" in a day's work—of course no necessity "to have the *teeth cleaned*"—mowed over fifty acres of grass, up hill and "down hill," some "green" and some dry, some light and some heavy, and "lying at an angle so great as also to lie flat on the ground, and withal leaving a "more tidy stubble" and doing better work than the scythe, is, we think, pretty conclusive evidence that the English *Hussey* is a poor concern compared with Brother Jonathan's; or else the "live Yankee" is wanting to show father Bull how to reap his "corn."

But, seriously, the shear principle so lauded in "Bell's original Scotch machine" has been often tried in this country by different manufacturers; and although they cut very well for a short time, while the edges are sharp and keen, they have so far generally been laid aside, or proved unsatisfactory, and unsuited to our large crops of grain and grass. After the edges become dull or gapped, the shears press apart and do not *cut* the stalks, but *tear* them asunder, thus adding greatly to the draught and liability to derange or break the gearing wheels. We are only advised of a very limited trial of Bell's machine, a few acres only; and although it may answer on the comparatively small fields in England, we want much stronger evidence that they will continuously cut hundreds of acres of wheat, as does the American reaper, with little grinding of the knives or "teeth;" and certainly, as is often the case with Hussey's, without material expense for repairs. It is, however, possible that Bell may have recently so improved and modernized his "original" machine as to do away with some of the objections that have hitherto effectually prevented its getting into use.

Much stress is also laid by another English committee on the great advantage of the serrated edge-cutters. Such does not appear to be the opinion generally entertained in this country, if reliance can be placed on the awards and reports of American committees on American reapers, and after greatly more extended trials. After a careful examination of the work done by the serrated edged cutters, and comparing it with the smooth bevil, or "chisel-edge," and also from the difficulty of properly grinding the former when dull or gapped—unavoidable at times in mowing—I give the preference decidedly to the smooth edge; and this, too, after using a machine that has a set of both kinds of cutters. The serrated cannot cut better than does the smooth edge, when properly constructed; and it is considered liable to more and greater objections.

The committee winds up with the opinion that "both are susceptible of very great improvement," i. e. Hussey's and McCormick's reapers. Doubtless they are susceptible of some improvement, (possibly "very great improvement" on the English plan of construction,) for no one will contend that they are yet perfect. But it is quite singular that *all the improvements* made to these machines in England, render the working less efficient and satisfactory than those made in this country. And it is passing strange that our transatlantic brethren, who knew little more, practically, of reaping machines a twelve months since than does the Grand Turk—even awarding to us the "Great Exhibition Medal" over the whole world—should now gravely inform us that this identical machine is "susceptible of very great improvement."

I fully agree with you in the remark that "nothing is more likely to produce improvement in this very valuable addition to our rural machinery than the active competition which is in existence between the makers of the rival implements.

It is certainly the best way to get the most perfect machine; and by competition, to reduce the price and increase the demand, so as to bring them within the reach of all, the small as well as the large farmer. What we most want, however, is a smaller machine for reaping and mowing, at a less price, to cut from six to ten acres a day, and of lighter draught and force to tend it. A dozen such could be sold where a single large machine now finds a purchaser. S.

On the Formation of a Clover Pasture.

A correspondent says:—

"I wish to put a 10 acre lot in *Clover* for pasture for my cows, and as a preparation I intend to put it in corn next spring. Could I with a certainty of getting a good stand sow the clover seed at the last working of the corn? The land is in good heart, has been limed within the last three years, at the rate of 50 bushels to the acre, and I mean to manure heavily for the corn crop. Now, can I expect a good growth of clover?"

Reply by the Editor.

We should *never* dream of forming a *good pasture* from Clover *alone*. From the condition of the soil, as represented above, if the corn be well and cleanly tended, it will be capable of growing a good crop of clover; but, according to our poor judgment, *clover alone, makes a most indifferent pasture*. As an auxiliary it is excellent. If our correspondent will take our advice in the premises, he will do this:—Cultivate his corn, as recommended in another article in this month's journal, under the head of—"*Setting timothy in corn-fields*,"—and at the last working of his corn, sow on each acre, 1 *bushel of orchard grass seed*, and *half a bushel of Kentucky Blue-grass seed*:—the following spring, when the frost is out of the ground, let him sow 10 lbs. of clover seed on each acre, roll it in, and then sow thereon 1 bushel of plaster, and 2 bushels of salt per acre, and he may rely upon having such a pasture as he may be proud of, and for which, his cows will be grateful, if cows can indulge in the sentiment of gratitude.

We apprehend, that, if our correspondent were to sow clover seed at the time of the last working of his corn, the succeeding winter would kill every plant as dead as Chelsea.

The Black Walnut.

To the Editor of the American Farmer—

Late in the fall of 1844, I planted a bushel of black walnuts in a straight line across my garden at Orwigsburg, where I then resided; the nuts were placed in the ground about three inches, touching each other, for the purpose of saving space. The following spring the greater part of them sprouted—two years after, I removed to Reading, and my brother, Francis S. Hubley, took possession of the property. Last year, after distributing a number of the trees to his friends in Schuylkill county, who desired to cultivate the walnut, he sent me a number, which I planted on my farm near this place. This fall he brought me several dozen of excellent walnuts, which grew to perfection, on two or three of trees remaining in the row. My family circle enjoyed the nuts at my dinner on New Year's day. I thought proper to mention this circumstance to you, to show in what brief space of time the black walnut tree can be be made to be productive from the nut.

Reading, Pa. Jan. 15, 1853. E. B. Hubley.

LAYING DOWN A LAWN—THE KINDS OF GRASSES, &c.

To the Editor of the American Farmer.

Dear Sir:—Will you permit a subscriber who is a young hand at the business of tilling the earth, to trouble you for some information in relation to preparing a lawn and seeding it in grasses which I wish to obtain early enough to carry into effect this spring. I know that compliance with this request will confer a favor on many more, who are in the same state of ignorance and perplexity with myself.

The piece of ground I wish to convert into a lawn is about 4 acres, and lies well, high and dry, a little rolling. The soil has never been broken up, being in the native growth, principally oak.—It is clay, considerably mixed with sand, sufficiently so as to render it easy to work and to keep the clay open, with a subsoil of clay. It is what we call good tobacco land, and the boast of our section is, that we can make the best article of chewing tobacco known in the markets of the world. I do not mean by this that it is extremely rich; if so, it would not produce that quality of the 'weed,' but that it possesses the tobacco making qualities in perfection. I presume it wants lime, for open the woods when you will, and clear a spot sufficient for the sunlight to play upon it, and immediately up springs a good supply of broom straw. I am now taking out every stump, grub and root, so as if possible to make a clean preparation, Now, when this is done, what next? How prepare it for seeding? What kind of ploughing, and what kind and quantity of manure? But above all, what kind of grass would you advise? Is not a mixture best—how many kinds, and what? What is the proper after culture, and what general information can you give that will be useful, to supply my lack of experience?

I hope you will find time from your many duties to give me a scrap or two, at least, of information in your February number. It may be that in some back number you have given the information I ask; if so, I will request you, not to refer me to it, for I have none prior to this present volume, but either reprint—which at this season would be well any way—or send me the number, if you have it on hand. Very truly, your ob't serv't, S. S. B.

Danville, Va. Jan. 10, 1853.

Reply by the Editor.

We treated the subject of the laying down and management of lawns, fully in our March number of 1851, p. 293; but as our correspondent has become a subscriber since then, we cheerfully comply with his request to give him the desired information.

Preparation of the Ground.

After our correspondent has completely grubbed and removed the roots from the ground he intends to lay down in a lawn, he should plough it at least 8 inches deep: If possible, the ploughing should be done early this month, and the furrows lapped, so as to expose as much of the surface of the inverted subsoil as possible, in order that it may be exposed to the mellorating influence of frost. Early in *March*, he should harrow his ground thoroughly, then roll; this done, let him put on a heavy dressing of stable, or barn-yard manure, say 20, 25, or 30 double horse cart-loads to the acre, cross-plough in the manure 6 inches deep, then harrow the land until it shall be reduced to fineness of tilth. Then

spread on each acre 4 bushels of *bone-dust*, 10 bushels of *ashes*, and 2 bushels of *salt*, which should be previously formed into pie, layer and layer about, and suffered to lie 3 weeks in bulk before being used; before incorporating the *bone-dust* with the *ashes* and *salt*, the bones should be moistened and turned over, so that every part of them shall be rendered moist; *harrow* these in, and *roll* the ground, when it will be fit to receive the grass seeds.

Lawn Grasses.

1. *Crested Dog's-tail*, 2, *Hard Fescue*, 3, *Sheep's Fescue*, 4, *Glaucus Fescue*, 5, *Purple Fescue*, 6, *Long awned Sheep's fescue*, 7, *Welsh Fescue*, 8, *Red top*, and 9, *Kentucky Blue Grass*.

Quantity of Seed per acre.

The quantity of seed per acre should be apportioned as follows: Of No. 1, half a bushel, of Nos. 2, 3, 4, 5, 6 and 7, each 1 gallon, of 8 and 9, 1 peck each.

Preparation of the Seed.

Spread the seed on the barn floor, one kind after the other, then add to them about double the quantity of ashes, shovel the whole over two or three times, so as to thoroughly mix the seed and the ashes through them.

Time of Sowing.

The period of sowing *oats* in *spring*, will be the proper time to sow the grass seeds in any locality —in *autumn*, *August* and *September*.

Mode of Sowing.

With the view of protecting the young grass plants from the rays of the sun, if sown in spring, the plat of ground to be formed into a lawn should be thinly seeded to oats. Sow on each acre 1 bushel of oats, harrow, and cross-harrow them in, then roll the ground, when it will be fit to receive the grass seeds. The oats being thus put in, let the grass seeds be carefully distributed by a skilful hand; the best way to effect this, is to sow first the way of the furrows, and then across them,—the seed being thus evenly distributed, harrow them *lightly in with a very light harrow;* then sow on each acre 1 bushel of plaster and roll the ground.

We will here remark, that if 4 lbs. of *White Clover seed*, and 2 lbs. of *Yellow Clover seed*, per acre, mixed with 4 times their bulk of ashes, were sown, after the grass seeds, the effect, by contrast of tints and shades, would be pleasant to the eye.

After Treatment.

When the Oats are ripe, harvest them; but otherwise the lawn should not be disturbed in any way the first year. The second, and all succeeding years, the grass should be cut every few weeks, so that a short, velvety turf may at all times be maintained. If, however, *sheep*, after the first season, were depastured on the lawn, this repeated cutting might be dispensed with. *Twenty sheep* would find abundant living on a 4 acre lawn.

To keep up the fertility of the soil of lawns, they should be dressed every *second year* with a compost formed thus: Lay down 1 load of well rotted stable or barn-yard manure, for each acre, on that place 4 bushels of bone-dust, on that 10 bushels of ashes, on that 2 bushels of salt, and on that, 1 bushel of plaster, shovel the whole well over, so as to mix the several ingredients well together; form the heap into bulk, in conical shape, leave it two weeks in bulk, reshovel it over, and spread it equally over the ground, harrow it in, and then roll. This operation should be performed every *second year* in autumn, during the month of October, or early in November.

"To preserve a lawn in its freshness during long continued droughts in summer, it should be watered; the labor of which is not great, *if one will but address himself to the work with a will;* for with the aid of a garden engine, it may be done in a few minutes: and certainly no husband or father, who takes pride in the appearance of the grounds surrounding his dwelling, should begrudge the necessary time, when its appropriation to such purpose is so well calculated to impart a charm and lend beauty to his home—to that *home* where dwells the dearest objects of his love, his affection and his regard—to that *home*, to which, after the shortest absence, he turns with feelings of joyousness, with aspirations of delight—to that *home*, which forms the attracting centre of all his earthly hopes—and the spot alone at which his heart finds its sweetest consolation and repose."

If our correspondent has not already cut down all the native trees on the land he intends to convert into a lawn, we would advise him to leave a sufficient number standing, at different points, to give expression and effect to the grounds surrounding his dwelling.

If our correspondent is sure that his land needs lime, he might very advantageously spread 20 bushels of lime per acre over it next fall.

Shortening-in of Peach Trees.—*Cole*, in his admirable little work, the "*American Fruit Book*," says:—

"To induce early bearing, particularly where trees [peach] are luxuriant and barren, clip off the extremity of their branches in July, about ⅓ of the new growth; this will produce blossom buds the latter part of summer, for a crop of the next season. We have found this very successful."

On the subject of manuring fruit trees, the same author remarks:—

"A tree that has grown long in a place, is much like an animal tethered to one spot, with a limited quantity of food. In both cases, food must be carried to them, or they fail. Perhaps the tree is too old to advance its roots much farther in quest of food, or in extension they might find scanty fare in a soil pre-occupied, like the animal that, with a long rope, is enabled to trespass on land already fed by a neighbor as hungry as himself. Spading around trees, or ploughing a few furrows near them, while most of the land is in grass, is only partial cultivation; but it may answer in a good soil kept in high condition.

Some crops may be cultivated among fruit trees with profit; others are injurious. Indian corn and smaller grains are crops generally that ripen their seeds, injure trees. Potatoes and other root crops are favorable; so are squashes and vines generally. Clover, as *pasturage*, is favorable, as mowing injurious. Pasturing orchards with small animals, as hogs, calves, sheep and poultry have a good effect, and they destroy insects, as the animals devour the fallen fruit, insects and all. Sheep are good against canker-worms. The treading and rooting of animals destroys or annoys insects in the soil. Sometimes hogs strip the roots of trees, and must be watched."*

* Better *enclose* than watch them, and thereby save the labor and expense of watching.—*Ed. Am. Far.*

AMERICAN FARMER

BALTIMORE, FEBRUARY 1, 1853.

TERMS OF THE AMERICAN FARMER.

$1 per annum, in advance; 6 copies for $5; 12 copies for $10; 30 copies for $20.

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Address, SAMUEL SANDS, Publisher,
At the *State Agricultural Society Rooms*, No. 128 Baltimore st. over the "American Office," 5th door from North-st.

MARYLAND STATE AGRICULTURAL SOCIETY.

A stated meeting of the Executive Committee will be held on the first Wednesday in February next, at 10 o'clock, A. M. at the Hall of the Society, in Baltimore.

A meeting of the Society will be held at the same time, to consider matters of interest, deferred from the Annual Meeting.

By order of
CHAS. B. CALVERT, Prest.
SAML. SANDS, Sec'y.

TIME OF COMMENCEMENT OF SUBSCRIPTIONS.—A correspondent in North Carolina says, that there is a desire manifested by some of the friends of the Farmer in the counties of Edgecomb, Pitt, Green, Halifax, Martin, Beaufort and Nash, that we should make our subscription year begin in January and July, i. e. "that they may not be compelled to take so many back Nos."—We were not aware that the impression was abroad that all new subscribers should begin with the volume. In receiving an order, we send from any period designated in it, altho' we would advise all who wish to preserve and bind the work (as they should) to take from the commencement of the volume, in order that they may have the advantage of the index at the close of the volume.

☞Our premium list for the current year, will be the same as the last.

CONNECTICUT AND MARYLAND TOBACCO.—Mr. H. J. B. Clark, of Ridgway, Warren Co. N. C. has sent us the following note. If any of our friends can comply with the request made, they would oblige, and can either direct their communications to Mr. C. or to this office.

"I wish to learn from such source as will be reliable, the manner of raising and curing the thin Tobacco such as is raised in Connecticut, expressly for wrappers, and whether it is from any peculiar kind of seed. If so, I wish you to send me a few of them.

"I saw some time since a notice of a fine quality of Tobacco raised in Maryland; I do not now recollect the name, but would like to hear more from it through your valuable paper, at your convenience."

Baltimore Manual Labor School.—We are indebted to the excellent President of this School, Jos. King, Jr., for a copy of the annual report, and allude to it for the purpose of directing the attention of the philanthropists of our city and state to its claims upon their kind consideration. The establishment is a farm school, in which destitute orphan boys are taken, fed, clothed and educated, to fit them for the duties of life, and then placed out as apprentices to mechanical or other professions—and the report before us, contains testimonials from a number of persons to whom lads, reared in this school, had been bound, speaking in the highest terms of their moral and industrious habits. The school is conducted on the most humane principles, as will be seen from the following extracts from the Teacher's report:

"All our minor regulations are based upon the law of kindness." "No effort is spared in causing the Pupil to feel that he is a member of a family in which there are common sympathies, and mutual concern for his welfare and comfort." "We are not insensible of the great difficulties attendant upon this work; the transformation of a friendless child, taken by philanthropy from the streets of your city, in his person uncleanly and careless—in manners, rude and vulgar, possessed of a mind in most cases untutored, and morals entirely neglected: we say the change of such a one, (and we have little else,) into a thoughtful, respectable Pupil, clothed with habits of neatness and order, and indued with a mind as well as morals, considerably enlightened and improved, is an enterprise requiring the assiduous application of the person entrusted with his education." "Each scholar has access to the Library, and a taste for general reading is constantly inculcated. We would solicit additions, in order to preserve the interest of the Children in it."

Attached to the School is a Farm and Garden, in which the boys are taught, at the same time to assist in the cultivation, and to form habits of industry. It is one of the most valuable charities of our state, and we know of but few others which appeal with more force to the kindly consideration of those who have been blessed with the means of doing good. We notice with much pleasure the announcement of legacies received during the past year, of $1,000 each, from two of our late estimable citizens, Miss Ellen Anne Brune, and Nelson Clarke, Esq.; and we sincerely hope that the example will be followed by many others, who, out of their abundance, can well afford to supply a small portion to so praiseworthy an object. Instead of 50 boys—the number attached to the school—the managers are anxious to increase the size of their buildings, to enable them to add 50 more. Who will come forward and lend them a helping hand? An institution having such claims, ought to be endowed in such a manner, that there should be no necessity for depending, as is now the case, upon the casual subscriptions for its support; and we know of no object upon which wealth could be more appropriately applied, at the same time to do the most good, and to hand down the name of the liberal minded to posterity, than by the endowment with permanent means of this noble work of charity and love.

A GOOD EXAMPLE.—To show how easily *good* can be accomplished, when there is a *will* to do, we present the following extract from a letter from a subscriber in Pitt Co. N. C. dated the 1st January, enclosing the cash for a list of new subscribers to the "*Farmer*." After apologizing for neglecting to send his own subscription for the current volume, he says:

"I can assure you that it is not that I am wanting in interest in agricultural affairs, or that your paper is uninteresting to me. Believe me, when I say I know of no paper that is as well suited to the farmers of this section of country, or that will improve their farming as much as yours, if your di-

rections are strictly followed. As some amende to you, and to benefit my neighbors, (yesterday being hiring day) I concluded to recommend your paper to some of my friends, which I could do with a clear conscience and a hearty good will. The result is the following club of 15 new subscribers, papers all directed to Falkland, Pitt Co. N. C."

Another—dated Alexandria, Va. Jan. 1.—"This blessed New Year's day you shall not be forgotten. Enclosed is a small remembrancer, $2—one-half will pay my subscription for Amer. Farmer up to July next, and the other $1 will pay in advance for a *new subscriber*, Mr. J. Send him the Farmer, beginning with the new year. Should all your subscribers begin the year devotionally, I am sure your cares would be lightened. Good health, good spirits and long life to you. A. S. T."

DR. HIGGINS' 3D ANNUAL REPORT.—The Report of the State Agricultural Chemist, to the Legislature, we are requested to say, has been delayed in consequence of the indisposition of Dr. Higgins. He is now, however, convalescent, and has placed a portion of the copy of the report in the hands of the printer, and it will, as speedily as possible, be published and laid on the desks of the members of the Legislature.

NORTH CAROLINA.—It is with great pleasure that we are enabled to bear testimony to the zeal which has been awakened in the Old North State for the improvement of the soil. In many counties we find agricultural societies are being formed, and a spirit of inquiry is abroad which cannot fail to be productive of much good. Our journal is feeling the effects of these movements, in the daily increase to its list of subscribers, and of enquiries upon various subjects connected with agriculture, and for improved breeds of stock, implements, machinery, &c. —A subscriber of Columbus Co. in forwarding a list of new subscribers, thus alludes to the value of our Journal:

"I would not return the two Nos. of your work that I have received for twice the year's cost, and be without them."

Another correspondent, in Greene Co. writes us:

"I do not know how much I am behind in my subscription to your valuable journal; I suppose, however, something like one year. I am really sorry, sir, that I have so long neglected to forward your due. I promise you now that it shall not be the case again, and as a proof of my earnestness I herewith enclose you three dollars, ($3) which you will please place to my credit, and if not *too* much trouble, let me know how long it will pay for.

"I welcome no paper (and I am a subscriber to several) with so much cordiality as I do the "American Farmer." I consider every number richly worth the subscription money. I have been for four years a subscriber, and have all the numbers nicely filed away, and it does my heart good to peruse them "o'er again." It seems like talking with an old friend after an absence. I intend to have them nicely bound, and shall consider them no small addition to my library."

THE HORTICULTURIST, FOR 1853.—The publisher of the Horticulturist, heretofore edited by the late A. J. Downing, Esq., having disposed of the work to Jas. Vick, Jr., of Rochester, N. Y., it is now published in that city, and is edited by P. Barry, Esq., whose valuable work on the *Fruit Garden*, and his other writings on Horticulture and Pomology, has made his name favorably known to the admirers of these useful branches of rural economy. The January number has been received, and is gotten up in most excellent taste; and the subject matter fully sustains the high character to which the work had attained under its late lamented editor. The number before us contains, besides numerous other articles, a description and plan of the residence of Mr. Downing, on the Hudson, and an engraving of the Sheldon Pear. There are two editions published, one $2 per annum, and another, with colored plates, at $4.

"THE COUNTRY GENTLEMAN."—This is the title of a new work, published by Luther Tucker, Esq., of the Cultivator. It is a weekly paper, embracing, in addition to the usual matters of an agricultural character, a variety of other subjects, of such a nature as to make it an interesting and welcome visitor to the family of those for whose benefit it is particularly intended.

"THE CULTIVATOR" is continued by the same publisher, the contents of which is made up from the agricultural department of the "Country Gentleman," and will no doubt sustain the reputation which it heretofore enjoyed as a standard work on agriculture.

THE SOIL OF THE SOUTH—published a Columbus, Ga., commenced its 3d volume on the 1st January. We can most cordially adopt the language of the publishers, when we say, that "every Southern man who cultivates a plantation, works a farm or garden, or grows a tree or flower, will find the *Soil of the South*, an invaluable companion."

"THE AGRICULTOR" is a new weekly journal, published in New York, by A. B. Allen & Co., and is devoted to the Farm and Garden, and rural economy, and is intended also as a family paper for the agriculturist—it is well gotten up, and should be encouraged by all requiring such a work. The "*Farm and Garden*" is the name of a monthly publication, which takes the place of "*The Plow*"—the contents of it are taken from "The Agricultor," and published a $1, per annum. The *Plow* was published at 50 cents, but was found not to pay at that price. Solon Robinson is the editor.

GUANO—*Change in the sale of Peruvian.*—We regret to have to announce, that the facility which has been for some months past afforded to farmers to purchase guano in small lots, at the lowest rates, direct from the Agents of the Peruvian Government, in this city, is no longer obtained—Less than 20 tons cannot now be purchased from the Messrs. Barreda—The rates are (per ton of 2,240 lbs.) for 20 tons and upwards, to 100, $46.20 cash, without discount—100 tons and over, $46.20, with 20 per cent. off, for cash—consequently farmers will have to club together in neighborhoods, and purchase the larger quantity, or buy from dealers, whose prices are as follows: for 1 to 10 tons, No. 1, $43; 10 to 20 tons, $42.50; Patagonian, $33 per ton, Mexican, $25 per ton. Dealers sell by the ton of 2000 lbs.

VALUABLE VARIETIES OF CORN.—Attention of gardeners is called to the advertisement of Messrs. Hovey & Co. offering for sale several varieties of early Corn. It would be well for our gardeners to try a small quantity of this corn, to test its adaptation to our soil and climate. It appears to be highly commended.

AGRICULTURAL COLLEGES.—We give on another page a second communication from Mr. Holliday on the subject of State aid to Agricultural Colleges or Schools. We would cordially unite with Mr. H. in every effort which can be devised to encourage practical experiments for the extension of agricultural knowledge, and this we think is being accomplished through the medium of our societies and journals devoted to the subject—but at the same time, we reiterate the opinion, formed from a close observation of men and things, for a long series of years, that the most effectual means of permanent good, to the agricultural interests of our country, is to be attained by the introduction into our colleges and schools, of branches of education directly connected with the every day affairs of life of the cultivator of the soil. We hold it as a self-evident fact, that there is a wider field for investigation, and thought, and action, in the science of Agriculture, than there is in that of any other *science*. Every plant, tree and grain—every animal, every kind of soil, afford objects for investigation—and how is this investigation to be made? It is a fact, also too well established, that in almost every family those sons who are supposed to evince most natural talent, or who are possessed of better opportunities of obtaining a collegiate education, are prepared in our colleges and seminaries for the *learned* professions, or the counting room,—and the State has endowed and supports many such institutions, to which we make no objection,—whilst the others are obliged to be content with the simplest education, as being all sufficient for their future pursuit as agriculturists. In the nature of things, consequently, they can seldom make an advance beyond the A. B. C. of their avocation—when arrived at manhood's age, and actively engaged in the laborious duties of the farm, few there are who have the time, and still less, the inclination, to devote themselves to the study of what then appears to them as abstruse sciences, which, had they have had the opportunity whilst attending school, would have been as easily mastered as the rule of three. We have no doubt these views will be responded to in the mind of many a farmer, as of his own experience.

But we are not disposed to go into an extended discussion of the subject—the facts which we wish to present, are so self-evident, that we cannot conceive how any one could attempt to gainsay them,—that the agricultural interest, which embraces so large a portion of the State, in its wealth and population, should be favored with the liberal assistance of the legislature, to promote the spread of intelligence peculiarly requisite for its advancement—that whilst the Physician, the Lawyer, the Merchant, the Mechanic, and others, each a small proportion of the whole, should find on the statute book liberal laws for the direct encouragement of education in their respective callings, the Agriculturist alone has been overlaughed, though comprising, as before observed, far the largest proportion of the population of the State. This subject was most ably presented to the consideration of the late Convention which framed our present State constitution, by *A. Bowie Davis*, esq. of Montgomery—and is also eloquently noticed in an Address delivered before the Valley Agricultural Society of Va. last fall, by Col. *W. W. W. Bowie*, of Prince George's, and published by request of the Society, a copy of which we have received, and from which we take pleasure in presenting to our readers the following, with the intention of making further extracts hereafter. After alluding to the progress made in Agriculture, thro' the instrumentality of Sinclair and Bakewell, of England, Taylor and Ruffin, of Va. Buell, of New York, and Skinner, of Md., which, tho' not even-paced with other Arts and Sciences, is destined to exert for ages to come a commanding influence, the Col. proceeds as follows:

"The agriculturists have been awakened to their true condition—no longer to be looked on as mere tillers of the soil, but as the *owner of that from which every* thing comes. In the language of an able British writer, 'all the Artists, Manufacturers and Commercialists of the world are employed on the produce of the soil, and on that only. The watch maker and anchor-smith, the clothier and lace maker, the goldsmith and the lapidary, are all, and each of them, equally engaged in one object, namely, that of rendering the productions of the earth subservient to the use and convenience of man. The stock of every warehouse and shop, the furuiture of every mansion and cottage, all implements and utensils, may easily be traced to the same origin. Even the books of the scholar, and the ink and quill through whose means he communicates his thoughts to others, are derived from the same source as the material on which the naval and civil architect exercises his ingenuity and skill. The loftiest spire and the smallest needle are both the effects of labor and skill exercised on the soil." Roused from their lethargy, to see and feel all this,—to comprehend the vastness of their power, they have determined, I trust, to become their own masters—to govern themselves—to rule and legislate for themselves and their own interests, with due regard for the rights of others, although others have paid, heretofore, but little respect to Agricultural rights and interests. A spirit is abroad in the land that will brook no longer to be ruled by Merchants, Manufacturers, Capitalists, the learned Professions, or others, whose interests are often antagonistic to those laws of Trade and international laws which would advance the farming interest. Thank God! the day of Agricultural reformation has dawned, and its earliest beams are now tinting the political horizon, to burst forth ere long in the full effulgence of meridian brightness. It is to these grand results that the enlightened Agriculturist looks with hopeful confidence, and as atoms make mountains, and often great results proceed from small events, so we are inspired with the assurance of success from the associations of farmers taking place daily in the country."

The orator, after showing the *practical* benefits of Agricultural associations, as presented in the results of that of his own native county, proceeds as follows:

"I have dwelt perhaps too long upon the benefits which have resulted to the people of one county in my own State, from an Agricultural Society, but I wished to show you, sir, how important it is to keep alive this spirit for improvement, by all farmers taking a lively interest in these annual farming festivals.

"By means of these societies—by the periodical journals upon the subject—by the learned labors of scientific writers who turn their talents to the advancement of this great cause, men no longer look with contempt upon the occupation of the farmer as one of mere physical employment, and

the farmer himself as a drone, a poor ignorant clod hopper,—but as a rational, intelligent, scientific gentleman, pursuing a noble, dignified, independent profession, and commanding a position in society, ranking with any of the "*learned professions.*" The young men of our country, when they leave the academic halls, instead of running off to the far west, in hopes of being comfortless proprietors of untilled manors, or rushing headlong into the professions, expecting to acquire fortune and fame, but often merely to starve gentlemanly, turn their thoughts to farming in their own native places, near their childhood's home, among their boyhood associates—

> * * * * "void of care and strife,
> To lead a soft, secure, inglorious life—
> A country cottage, near a chrystal flood,
> A winding valley, and a lofty wood."

It is then, in quietude, under the umbrageous trees he loves so well, with the placid stream or the rolling river at his feet, he meditates and ponders over the reading of the day—there he lifts his soul "from nature up to nature's God," pleased with the music that is above and around him. Contented with himself and at peace with the world, he is proud of his *calling*, and rejoices that he is a farmer, uncontaminated by the seductions of a life at court—unharmed by the turbulent waves of politics—undisturbed by the ever-fleeting, shadowy form of Fame. The light of such a man would not be hid under a bushel, but would shed abroad, exerting its vivifying influence over his neighborhood, and manifesting in strong colors what should be the life of a true farmer. Gentlemen, let us so train up our young men, so educate them that they may be learned in those sciences tending to foster agriculture, and adorn and dignify that profession which in early infancy we inspired them to love and cherish, as the best for the welfare of their country, and the happiest course of life for themselves. *Our young men who intend to be agriculturists should be educated as thoroughly for that pursuit, as those who intend to be lawers and doctors of medicine.* The too prevalent custom now is, or has been, that he who is to be the *Farmer* seldom receives a full course of collegiate education; if he does, he is at once considered fit to take charge of a farm, and consequently often finds himself, ere his life has fairly begun, deeply in debt—a *slave* to hundreds—solely because of his ignorance in the requirements of both the theory and practice of Agriculture. Not having a correct theory, it requires years for him to become practical. On the other hand, he who is destined for the Bar, receives his diploma, then studies years to fit himself for his life-vocation. Where is the sensible reason for this? None! Therefore, let our young farmers receive a liberal education, and then devote one or two years to the study of Chemistry, Mineralogy, Natural History, Architecture, Painting and Drawing, Physiology, Natural Philosophy, and indeed every branch of Science which would make them accomplished Agricultural scholars. From this course of study the young farmer would be able to survey his farm; lay off his fields and lots; draft plans of houses and implements; know the character of his domestic animals—their wants, habits, dispositions and diseases, and thereby the easier supply them with the proper food, administer the proper remedies in sickness, and enable them to be always more comfortable, and far more profitable. He could be able to analyse his own soil, perceive its defects, and supply the proper ingredients where wanted to make it uniformly productive. Then thorough investigation would commence, and all the elements of the soil would be scrutinized, and man would become familiar with his mother Earth. The wonders of nature would be bared before the most unthinking mind, and ten blades of grass would grow where only one had grown before. On this subject, the able State Chemist of Maryland, Dr. Higgins, in his last report to the Legislature, says: 'How can any Agriculturist fail to be benefitted by that science which can determine the nature and quality of the elements of the soil with almost infallible exactness; determine in like manner the composition of manures, and thus adapt the one to the other, without loss and without disappointment?'"

"Dr. Johnson said, "Agriculture is the great Art which every Government ought to protect, every proprietor of land to practice, and every inquirer into nature to improve." Napoleon declared that the wealth of a nation was its Agriculture. "The Father of his Country" strenuously advocated for it the fostering care of Government. At the close of his administration, he urgently recommended to Congress the institution of a National Board of Agriculture; and in a letter to Sir John Sinclair, in 1797, expresses his "*sorrow*" that "the pressure of what *they* conceived more important business," prevented his suggestions being carried into effect. Not only the National Government, but the State Legislature ought to pass wholesome laws for the aid and encouragement of this all-important interest. *Every other interest is taken care of and zealously guarded, while Agriculture is left to take care of itself, and is, indeed, the pack-horse of the nation,* being required to bear nearly all the burthens and receive none of the rewards, although the statistics of the country show that a capital exceeding five thousand millions of dollars is employed, and more than two-thirds of the labor of the country is engaged in this pursuit. Such of the States as have legislated for the benefit of the farmer, have increased their wealth and the resources of their people. New York has been enriched by her efforts to enlighten and assist her farming classes,—while Maryland, by a small outlay for the services of a State Chemist, has greatly increased the productiveness of her soil, and added wealth to her people, in any one county, more than would for years pay the expenses of continuing that office. By analysis of the soil, expenditures in particular manures have been shown to be useless,—and thus a great saving has been accomplished, and large deposites of rich natural fertilizers have been discovered, by which hundreds of acres of adjacent poor land have been reclaimed and brought to a high state of fertility. *It behooves us, fellow-farmers,* as lovers of our country, to press this subject upon the consideration of our Legislators, that we may invoke the power of the State to aid our efforts by offering high premiums, so as to enlist the talents of the ablest writers in elucidating the great truths of those sciences which best promote Agriculture; to test principles and try experiments which may lead to beneficial results."

Bushels.—The Imperial (English) bushel contains 2,218.192 cubic inches;

The Winchester (American) bushel contains 2,150.42 cubic inches.

Agricultural Schools—Experiments, &c.

To the Editor of the American Farmer.

I tender my thanks to your printer for the patience it must have cost him to decypher the very bad manuscript, which in my haste I sent for your last number, and ask the privilege of making a few corrections.

Read in proper places—not *acting* as politicians—prove their consciousness *of* a truth—forbids *me* not to say—and *the* essence at which we aim.

To you I am indebted for an extract from Col. Carey's able address, which indirectly furnishes the best sort of evidence that my first objection to State agricultural schools is not without foundation.

It is not necessary to my present purpose to go behind his opinions and examine how far they may be soundly applicable to the present condition of things in this country, where both individual and associated intelligence have already worked such wonders, without pecuniary aid from government, and in spite of legislative mismanagement and oppression; it is enough for me to know that at the time his address was delivered, he either was or had just been a prominent member of the State Senate, and that he either did not attempt, for reasons worthy of his high intelligence, to obtain action in favor of such a project, or that he failed in the attempt, in order to find fair proof that such action could not then be procured.

I need scarce refer to the existing truth that, notwithstanding all that has been written and said, we are still to all appearance as far as ever from that consummation, which by so many is professed so devoutly to be wished. I have already heard, without surprise, that some have interpreted me as being opposed to agricultural education, but all who read with even half an eye, will have perceived that I only object to that which, unchecked by sober practice, would soon degenerate into mere shadowy form, and that I seek a something capable of being everywhere taught as substantial truth. But grant for a moment that we can and shall have State agricultural schools, and they prove to be all that gentlemen's fancies paint them, would it not be well, in order to keep the rest of mankind within hailing distance of those who might find room to be educated in them, to encourage a system of experiments upon subjects immediately connected with real farming, and capable of being carried out under an ordinary state of things?

The general plan of operations I would suggest is, that the State Society should offer premiums for the best experiment conducted within the State, and the county societies, for the best within their respective counties; and that they should endeavor, in co-operation, to obtain from the Smithsonian Institute, endowed for the diffusion of knowledge among men, offers for the best within the United States.

Due efforts should be made to agree in the selection of subjects for experiments, still leaving, however, the right to each association to choose for itself. The mass of information which could thus be collected, might be so sifted down as to derive general truths, where important facts, coming from various sources, would be found to coincide,—and special truths applicable to particular regions. The general truths would stand in the same relation to agriculture that astronomy does to navigation; and the special truths, would, in their appplication to neighborhoods, be like well known soundings, safe in practice.

Time would be required so to collect and arrange truths thus to be derived, as to have them in a state to be taught in our common schools; but, as it is better not to teach any thing which is not certainly true, than to fill the youthful mind, untrained to reason, with a mixture in which fable may predominate over fact, it is impossible to be too cautious in the adoption of dogmas to be taught. The application of chemistry to agriculture would form the great general subject for experiments; and in my view, in order to be made generally advantageous, it must be tested under every variety of circumstance, when trials can be induced.

To believe that it can thus be made practically more perfect as a science, by being more thoroughly made known in all its bearings to those who have already adopted it as a profession, and can thus be placed in a condition to be much more speedily and effectually taught to those who may hereafter wish to adopt it, I deem perfectly in accordance with that soundest of philosophy—common sense.

Thos. R. Holliday.

CULTIVATION OF THE OSAGE ORANGE.

Mr. Benjamin Sears, of *Bucyrus*, Ohio, gives the following as his mode of cultivating the Osage Orange, and manner of setting out the plants to form a hedge:

Preparing and Sowing Seed.

"I have been cultivating the Osage Orange, as a substitute for rail fence, for three years; have sown a quart of seed each spring. The *first* quart was carefully sown, after soaking a number of days in warm water, from which I obtained nearly 1,200 plants, one-third not germinating until the second spring. The *second* quart, treated similarly, did not produce 100 plants. On the 30th of last April, I sowed the *third* quart of seed, which had been soaked in warm water 5 days, to which I added as much *saleratus* as I could take up with my thumb and finger, repeating the dose as often as necessary. As soon as sown, the rows of seed were covered with boards, which were not taken off until some of the plants had made their way up to them. I think every seed must have vegetated, as it produced about 8,000 plants. I think 1½ inch the right depth to cover the seed, and that it is essential to have the soil deep, mellow, rich and moist."

Mode of Planting.

"My plan of planting the hedge has been to throw up land, ten feet wide, with the plough, going as deep as possible; harrow until pulverized; strike a furrow on the centre, straight as a line; stretch a line over the centre of the furrow; put in the plants 13 inches apart, carefully pressing the soil around them, and placing them exactly where wanted. I cultivate a row of potatoes, or some other vegetable which will not shade them, on each side, the first and second seasons. As to their capacity to stand transplanting, I will state that, in 28 rods of two-year old plants, put out last spring, not a single failure occurred. They were cut off at the surface of the ground when planted. They now stand nearly 5 feet in height. It is my impression that any clipping the first summer retards their growth. Taking all things in view, two-year old plants are the best for planting. They require less attention and make a fence quicker. The expense of preparing ground and planting will not exceed 10 cents per rod."

THE OSAGE ORANGE—*Cultivation the first year.* Jno. C. Garnet, in the Valley Farmer, gives his experience in raising the Osage Orange the past season. We hope to see the hedge more freely cultivated than it has been. The difficulty of procuring seed has prevented its being brought into more active use hitherto,—but the supply, we have reason to believe, will be quite ample hereafter. Mr. Garnet's mode of cultivation, is as follows:

"I put the seed with as much water (not boiling but hot enough to burn the hand) as would cover them an inch; then set them on the mantle for three days, after which I prepared my ground and sowed them in drills, the seed about half an inch apart, and covered them from half an inch to an inch in depth. In two weeks some of the plants began to make their appearance, while it was five or six weeks before others showed themselves above ground. The first weeding was very tedious, after that not more than a drill of parsnips. I have about 2500 plants from a pound of seed. Some are three feet high, with thorns about one inch in length, and as sharp as needles. I think it would be advisable to sow the seed in a piece of ground that has been well cultivated the previous year."

A correspondent inquires of the Ohio Cultivator, if it will do to allow the Osage Orange to grow two years before transplanting. The Editor, who has given much attention to the subject, answers yes, if the soil is rather poor or shallow, so that the growth will be small; but if on rich ground the roots will become too large and deep for removal without serious injury. Where the plants attain an average of 12 inches or more in height the first year, they should not be allowed to remain a second year before transplanting.

Another correspondent says his young hedge grows too strongly, sending up long shoots after each clipping, &c. This is a good sign; and if he will clip it freely early in June, and again in July, or as soon as the shoots are about 12 inches long, he will find no cause to regret its vigorous growth.

WHEAT BRAN AS A STIMULANT FOR CORN.

To the Editor of the American Farmer.

"Would you think it, I have found *wheat bran* a greater stimulant for corn than Chemical Salts, or Guano mixed with common salt, or mixed with Plaster of Paris, or even of rich hog-pen manure, or well rotted summer cow-pen manure, and the corn nearly or quite as good as the best of the above, which was guano mixed with common salt, in the proportion of 200 lbs. to ¾ bush. salt."

L. W. ALLEN.

Caroline Co. Va. Jan. 6, 1853.

Reply by the Editor of the American Farmer.

We should be pleased to receive accounts of the experiments of our esteemed correspondent, in the use of various kinds of manures.

Bran has long been known as a valuable manure; to *corn*, owing to the large quantity of bone-earth which it contains, it is peculiarly well adapted, and as 9 lbs. of good wheat bran, will go as far as will 10 lbs. of good hay, there must, necessarily, be in it a reasonable portion of nutritive matter, and hence its utility as a manure. Bran forms a most admirable top-dressing for grass lands, and would, could it be had in sufficient quantities, prove an admirable top-dressing for wheat, or any other small grain,—having in it both inorganic and organic elements, it would yield them up, on decomposition, to the growing plants.

MODE OF GROWING A HEDGE FROM THE PYRACANTHUS—DO. FROM THE OSAGE ORANGE—TOP-DRESSING GRASS-LANDS—PLOUGHING IN VARIOUS PLANTS AS PREPARATION FOR WHEAT—BENEFITS DERIVED FROM COLLECTING MATERIALS TO COMPOST INTO MANURE—PREVENTIVE AGAINST SOWS DESTROYING THEIR PIGS.

BUCKEYELAND, *Albemarle Co., Va.*, January 7th, 1853.

To the Editor of the American Farmer—

Dear Sir:—For years I have been a subscriber to, and an attentive reader of your most valuable paper, (the American Farmer,) from which I have derived much pleasure and profit, for which, please accept my sincere thanks and best wishes for a greater success to yourself and paper. Now, may I venture to ask through your paper, (if it be not too much crowded with more useful matter,) some information of Pyracanthus as a hedge. Can you, or any of your correspondents give me a plan by which it can be produced from the seed. I have tried gallons of them and have not succeeded in getting one to sprout. I procured the seed from a farm formerly owned by Mr. Emmet, of the University of Virginia. He seems to have succeeded well; yet no one thereabouts can tell me how he did succeed. The only account I have ever seen of this hedge was in the 3d vol. of the memoirs of the Philadelphia Agricaltural Society, page 42 of its appendix,—in which it seems to have been easily raised from the seed, yet no directions given. Also of the cedar, which I have failed to raise from the seed. I have met with but one instance of their being raised from the seed, which was in the 3d vol. of Skinner's American Farmer, page 22, which plan I am now trying upon both the Cedar and the Pyracanthus; if either succeed, and it will be any service, I will give you a statement of the trial. I have procured some Osage Orange seed; can you give me the best mode to secure success with them. You may think strange that one should thus think of hedging in this part of Va.; it is not because timber is now scarce, or likely to be so with me,—it is from the conviction that ditching and hedging is, or will be the cheapest with me. My farm consists of six fields, all running across the creek low grounds, from three to eight hundred yards wide,—all of which have been greatly improved by ditching; and now, if I can get a hedge to answer the purpose of a fence, it does seem to me, it must be by far the cheapest and prettiest enclosure The preparation for my line or outer fence, is a ditch on the outside, 4 feet wide at top; four feet deep, with a slope from the embankment to within one foot of the straight side at the bottom; the embankment covering a space of six feet, on the upper side of which I cut a three feet ditch, throwing the dirt also upon the embankment, upon which I wish to raise me a hedge by placing a row of plank on its edge, a foot from the top, on each side. Set out the plants half way from the plank to the top of the ridge, and cover them sufficiently deep with well rotted manure. After the plants have sufficiently grown to require no more work, then to top dress the remainder of the embankment and seed it with green sward, or Kentucky Blue grass. I am making some experiments to ascertain the best application to make of manures. I am now of the opinion the very best mode is that of top dressing grass lands. I have ploughed in Buckwheat to a great advantage for

wheat and the improvement of my lands. I shall this year make three experiments for wheat and a meadow, all upon the same kind of land: one of Buckwheat, by ploughing in two crops—one of the Louisiana cow pea—one of the common black-eye pea, and one of guano, with a strict account of cost of seed, labor, &c., and a correct account of the yield in wheat, and the succeeding crop of clover and grass. The reading of your paper has learnt me to raise and collect ten times the manure I formerly did; and instead of buying, I am a yearly seller of pork, beef, mutton, lambs and horses, and my farm rapidly improving; my cabins, cow shelters, stables, hog pens, &c., all in a far better condition and well attended to. From my hog pen this fall, I think I made a good four horse load of excellent manure every day, by leaves, weeds, &c. I bring all the weeds, briars, &c., to my farm pen, during the summer, and pen my stock on them at night, which makes lots of the best manures, and have drained all my lands. This year I shall keep up all my sow pigs instead of spaying, having tried it once and found them heavier than the barrows kept in the same pens with them. By-the-by, I have had to slaughter many a fine breeding sow, for destroying her pigs; and should have killed my best breeder this fall for the same offence, but for Fessenden's complete Farmer and Gardener, page 164, which taught me an easy and effectual way of curing them of this unnatural propensity, namely—

☞ Just to cut up a pound of raw salt pork and give it to her. Mine had eat two of her's—I gave it to her—she has never disturbed one since. Tar put upon a rubbing post will keep off lice from hogs. I intended only making a few enquiries, but I find I have written a long letter, for which you will please excuse me, and answer the enquiries if you can, and you will much oblige.

Yours, most respectfully,

GEO. C. GILMER.

Reply by the Editor of the American Farmer.

By reference to the American Farmer of Sept., 1849, page 87, our correspondent will find the method laid down for propagating the Pyracanthus from the seed, as well as mode of transplantation and culture of the Hedge.

In regard to the culture of the *Osage Orange*, our correspondent is referred to the 4th vol. of our journal, pp. 55, 87, 88, 89, 211, 212—copies of which we have forwarded him by mail—also to preceding pages of this No.

We hope to receive an account in due time of the result of the experiments of our correspondent.

FLORAL DEPARTMENT.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

In this month, plants in the houses will be more generally in bloom, and will begin to make growth as the spring opens; they should be attended to with care, and kept clean from insects, which infest them.

Camellias will be in their greatest beauty, and should be liberally watered; such as require larger pots, should be removed—inarching might be done, and cuttings put in now—pruhe the plants so as to give them a proper shape, which adds much to the appearance of all plants.

Azaleas should be liberally watered now they are coming into bloom; also sow the seed, if on hand, in flat pots or boxes; but do not cover them too deep—for a short time it would be better to cover with moss.

Achemenes, Gloxinias, Gesneras, Gloriosa superba, Erythrinas, and most all those plants which are dormant through the winter, repot in fresh soil and start them in growth by giving a moderate supply of water till they make some foliage; then water more freely.

Japan Lillies, pot the large roots, if not already done, and keep them near the glass; they require the same situation as the other spring flowering bulbs.

Ixias, Gladiolus, Babianas, Sparaxis, Lachenalias, require plenty of light and air, otherwise the foliage will be injured, especially when kept too damp, which destroys the beauty of the flowers—keep them rather dry than otherwise, till near the time of blooming.

Geraniums will begin to grow; keep the plants low, by training them, and begin to give more water; if a little guano was used in the water, it would benefit them—keep the plants at a proper distance; give them plenty of air, and free them from insects; syringe occasionally over the foliage, and repot such plants as need larger pots.

Heaths, Epacrises, Diosmas, Acacias, and such hardy greenhouse plants, at this time will be in bloom; and such as have done flowering, cut in and propagate from cuttings, if such are wanted to keep up the stock; also sow seeds of any greenhouse or stove plants.

Dahlias should be started to grow for propagation; repot the roots, or place them in some favorable situation, so that they will make growth, to increase young plants.

Roses—Have all repotted in fresh soil, and prune off all the old decayed wood; this makes them throw out healthy young wood, which gives a finer bloom, and moreover is a benefit to the plants, as it keeps them in good condition. In general, there is an unnecessary fear in cutting down most plants.

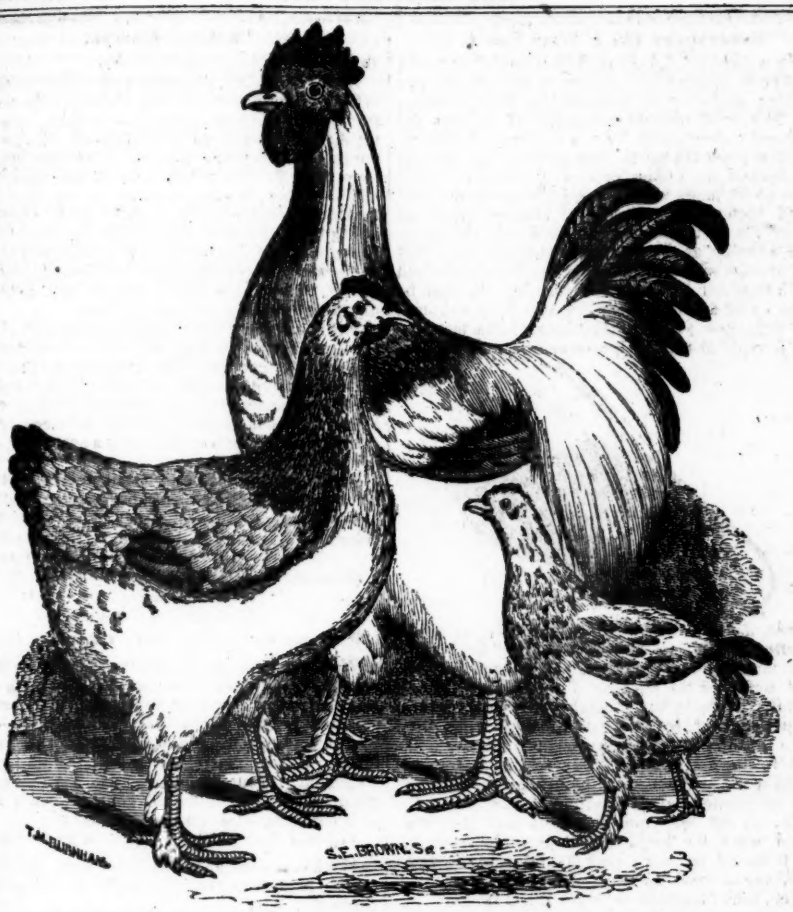
Verbenas, Gilliflowers, Auriculas, Primroses, and all hardy frame plants, will need repotting and being forwarded; give them plenty of air, and prepare a bed for all early seeds, of such as are wanted for bedding out in the spring, to give bloom before those sown in the natural ground—by so doing, a succession of flowers can be kept up through the summer.

Many plants which have been kept in a dark place through the winter, should be brought forward at the close of the month, if they show signs of growth, otherwise they are much injured, when allowed to grow in such situations, and seldom make any bloom at all during the season.

Foot Evil in Horses.—M. P. Lientz, gives to the St. Louis Farmer, the following, which he says is a valuable cure for this disease:

"Take one ounce of corrosive sublimate, and half a pint of soft soap. Put them into a wide mouthed bottle and shake them well together. In twenty-four hours it will be ready for use. With a feather apply the mixture to the diseased part of the foot every third day, until three applications are made. Keep the horse in a dry lot or stable, and nothing more will be necessary to effect a complete cure."

"Maryland," "A Subscriber" of Frederick Co, and a communication from Dr. Dupuy on the subject of lime, were received and given into the hands of the printer, but have been crowded out.



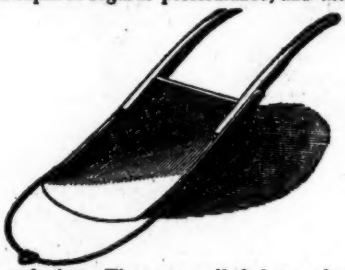
THE BRAHMA POOTRA FOWL.

This superior fowl, which has attracted so much attention in our country within the past year, and created no less wonder and excitement in England since the receipt of Queen Victoria's elegant present of 6 of these superior fowls, from Mr. G. P. Burnham, of Boston, and also Lord Northby's (of Aldborough) receipt of his extraordinary specimens, for which he paid Mr. Burnham $300 for two pair. This has given a great demand for the stock, and it appears so difficult to supply the demand for them under their proper name, that a disposition is abroad to call them Shanghies, for wholesale operations. But it is sad to call any thing "so fair by a fowl" name. They were brought here from the valley of Brahma Pootra, in the State of Chittagong, India, and justly entitled to be named after the valley or country of their nativity. They differ entirely in formation from all varieties of the Shanghai; they have better and more compact bodies; less offal, (neck and legs,) and are the best layers known, and also lay the largest eggs—the eggs differ in appearance and form from the Shanghai. The cut and samples I exhibit of this superior breed, are the same as those sent to Lord Northby. Mr. George Smith, of Valley Falls, R. I. received the premium of the New England Society at the late Fair, and has furnished all of the eastern dealers with fine samples. I have now four lots of the Brahma Pootra Fowls, and the cut in the January No. (15th) of Gleason's Pictorial called Shanghaies, are the type of my birds. I have Dr. Bennett's celebrated stock of the same, which will compare with any of the monster breeds for good qualities. Mr. Smith writes me that he has a pullet that laid 88 eggs in 87 days, some days laying two eggs a day. This may appear strange to many, but it is not a rare quality with the best varieties of the Asiatic fowls. The eggs will weigh from 3 to 4½ oz.—the stag I exhibited with you, was hatched on the 25th of April, and weighs now 11½ lbs. I will breed largely from this variety of fowls in the spring, and will supply all demands for stock from all directions, through Mr. Smith or other reliable sources. Prices range from $15 to $50 per pair.

[We received the above remarks from Dr. G. W. Lawrence, (whose advertisement will be found on another page,) and had the opportunity of examining a couple of pairs of the fowls, as noticed above, which he had just received from Mr. Smith; an egg weighing 3⅞ oz. has been left at our office.]

Embankment for a Wire Fence.

We notice "A Loudoun Subscriber's" remarks relative to embanking. There is no horse-power machine made for the purpose that we are aware of. The most expeditious mode of making the proposed embankment for a wire fence, however, is to first plant the posts, (say 12 in. deep) forming the desired line; then procure a substantial four horse plow, made with a long high-breasted mould board, with which run several furrows right and left of the posts, throwing *inward* and cutting as deep a furrow as the mould board will allow,—this first process will form the ridge say 15 in. high, and width required. The outside furrows may then be taken up by a Horse Scoop, (drawn by one horse) and deposited on the embankment; this last process is rapid as regards performance, and the best



we can devise. The scoop alluded to, of which we annex a cut, can be had of any of our implement makers—it is made of cast iron, and has been very useful for the purpose of road making, leveling hills, filling hollows, digging wide deep ditches, and cellars, and are found very convenient on farms. For a finishing process, the *scoop* would also answer for levelling and dressing the embankment, the only impediment to its course being the posts, which may be planted before or after the embankment is made, as our correspondent finds most judicious. Again, when the embankment is made, levelled, &c. it should be sown (say 1st March) in grass seed, say a good mixture of green grasses and clover, thus forming a substantial sod ridge.

French Merino Sheep.—An article in the Northern Farmer thus describes the French Merino Sheep, nearly 600 of which breed have been imported into this country by that eminent sheep breeder, S. W. Jewett, of Middleburg, Vt.

"The peculiar characteristics of the French Merinos are, that they combine both mutton and wool qualities. Wethers of this breed, at full age, dress from 30 to 35 pounds the quarter, and they shear from 8 to 28 lbs of beautiful quality of washed wool. They are superior nurses, and very prolific, and naturally tame and quiet, requiring but little fence to control them."

Mineral Phosphate of Lime.—We have heretofore noticed the fact, that deposites of the natural Phosphate of Lime, had been discovered in New Jersey and New York, and that companies have been formed for bringing it into use. We now learn that it is about being introduced to the farming community, through an Agency which has been established in this city. Preparations are in progress to combine the mineral with acid, so that Superphosphate of Lime will soon be within the reach of our farmers and planters. Evan T. Ellicott, Esq. is the Agent for this city.

Chemical Manual.

To the Editor of the American Farmer.

Dear Sir:—It is desirable that the Committee's design, in proposing an *easy Chemical Manual* for farmers, should not be misapprehended. It is only the *more common* cases of analysis of *soils* and *manures*, that they are advised to undertake; and, they may do this without becoming expert chemists. The soils vary so much, on the same farm, that single analyses are of little avail, except to multiply disappointments. The business of professed chemists, moreover, will be *increased* so soon as farmers generally shall be brought, by such means, to appreciate more highly than they now do, the utility of these examinations.

It is a still more serious misapprehension, if this plan, or that for an Agricultural Professorship, be supposed to conflict with the office of the State Chemist. On the contrary, these measures would tend to enhance the estimate which the public have already formed of the valuable services of that officer, in his efforts to introduce a system of scientific agriculture.

No harm can arise from the proposed premium, since the competitors will be in the hands of a highly competent committee, who will, by no means, sanction any quackery that might be offered.

Truly yours, Hector Humphreys.

Annapolis, Jan. 1st, 1853.

For the American Farmer.

Propagation of the Rose from the Slip.

Will you be good enough to inform me how to propagate the rose from the slip? I have made many trials and have failed in nearly every instance.

I want a few roses of the very best kinds—ever-blooming, fragrant, and of different colors, to train about a cottage porch. What kinds would you recommend? Your very skilful and tasteful correspondent, Mr. Feast, would confer a favor by answering these inquiries in your next No.

Virginia, Dec. 1852. A Subscriber.

We handed the above to Mr. Feast, and the following reply was promptly made to the questions contained in it:

Sir:—In answer to your correspondent, respecting raising roses from slips or cuttings, I would say, that I take of the well ripened wood and cut them in lengths of about three inches; divest them of a part of the foliage, and insert them in clear white sand in pots or boxes, keeping them regularly watered, not allowing them to get too dry, and at regular temperature. Some cover with bell glasses, but I avoid this practice, for if taken care of, strikes very free without cuttings can be taken off at any time from the China varieties. Roses for running and ever-blooming, are Lamarque, Ophir, Cloth of Gold, Salfatre, Tea Cluster, Flemburg, De La Ducherri, Pink Noisette, Musk Cluster, and many more perpetuals.

Respectfully, John Feast.

Measurement of Hay in Bulk.—Multiply the length, breadth and height of the hay into each other, and if the hay is somewhat settled, ten solid yards will weigh a ton. Clover will take 11 to 12 yards to a ton.

An English Quarter Wheat is eight Imperial bushels of 70 pounds each, 9 1-3 American bushels of 60 pounds each.

DISEASES OF ANIMALS.

Lorain, in his "*Practical Husbandry*," has the following cases of cures—the first that of an *ox*, the second that of a valuable mare.

SCOURS.

"Two cases in point, happened to myself, the first a three year old ox, which had been too hard worked, after being in a plentiful pasture of young and tender grass. He was taken with an excessive scouring, which soon terminated in frequent and very painful discharges of mucus mixed with blood, very offensive to the smell; and the animal appeared in very imminent danger. His case was briefly stated in a note to Dr. *Dewees*, who ordered a drench of 6 *oz. of castor oil*, and *half an oz. of laudanum*. This was to be repeated if necessary; but the first dose cured the ox."

LOCK JAW.

"The second case was a spirited mare. She had been worked in the forenoon, and evidently much abused by a thoughtless driver. It was also believed that some nerve or nerves had been severely wounded by an inconsiderate stroke, especially as the marks of severe strokes appeared. Be this, however, as it may, a lock-jaw ensued in the afternoon, attended with stiffness in her limbs, an unnatural distension of her nostrils, with spasmodic affections in her cheeks, neck, sides and flanks, which produced a powerful commotion in the parts affected. Her jaws were so firmly clinched, that no force which it was considered prudent to apply, was capable of moving them. She was very restless, often lay down and rose again in a short time; and although very desirous to drink, the spasms rendered swallowing impossible."

"Every assistance that could be devised, was carefully administered, until the forenoon of the ensuing day, at which time she became unable to rise, and appeared to be in the agonies of death. However, to get rid of what I then thought, the useless importunity of one of my family, Dr. *Dewees* was again consulted. He observed, Dr. Rush had informed him that he had cured a horse of the lock-jaw, by dashing cold water plentifully over him; and remarked, that as the case was a desperate one, he would advise this to be done. With the assistance of several men the mare was set on her feet, and with considerable difficulty conducted to a well near at hand, *thirty*, or perhaps *forty* bucketsful of cold water were dashed with every possible despatch on her head, neck, back, buttocks, sides and belly, so that no part of her body escaped a profuse bathing. It was *repeated* in about two hours, or perhaps less, and it was then thought that the clinching of the jaws was a little relaxed. This gave encouragement to try a *third*, and before this was finished, she began to bite the grass growing near her; but the jaws were not yet sufficiently relaxed to permit proper chewing, or the spasms so far subsided as to admit swallowing. Hunger, however, urged her to a continual nibbling at the grass, although it fell out of her mouth without mastication. A *fourth* bathing enabled her to chew and swallow, and the next day she appeared to be well, but rather thin and hollow. It is now more than three years since this happened, and the mare has been as healthy and active as before the lock-jaw took place. During the intervals of the baths, and for two or three days after she recovered, she was kept covered with a blanket; but as it was thought grass was better for her than hay, she was not put into the stable."

COMPOSITION FOR RENDERING BOOTS AND SHOES WATER-PROOF.

"Take 1 pint of boiled *linseed oil*, 2 oz. of *beeswax*, 2 oz. of *spirits* of *turpentine*, and 2 oz. of *Burgundy pitch*. Let them be carefully melted over a slow fire. With this mixture new shoes and boots are to be rubbed in the sun, or at a little distance from the fire, with a sponge or brush. This operation should be repeated without wearing them as often as they become dry, until they are fully saturated; which will require four or five times brushing—by this, the leather becomes impervious to water. The boot or shoe, thus prepared, lasts much longer than common leather; it acquires such a pliability and softness, that it will never shrivel, nor grow hard, and in that state, is the most effectual preventive against colds, &c. It is necessary to remark that shoes and boots, thus prepared, ought not to be worn, until they become perfectly dry and elastic; as in the contrary case, the leather will become too soft, and wear out much sooner than it otherwise would."

We have tried the effect of the *composition* made agreeably to this *recipe*, and can vouch for its rendering leather water proof. In order to test it, we procured a new pair of shoes, gave them five successive rubbings with it, allowing sufficient time between each for the composition to become dry. After the last had become perfectly absorbed by the leather, we placed one of the shoes in a tub partially filled with water, and left it there for 4½ hours. When we took the shoe out, it was as dry as when we first placed it in the tub; the effect of the composition is, that while it renders the leather *water-proof*, in the broadest sense of the term, it makes it soft and pliant, and, therefore, the more elastic and durable. From our experience in the wear of shoes made water-proof, we have no hesitancy in saying, that a pair thus treated, will last as long as two pair that may be worn without it. But independent of this economical view of the subject, there is so much comfort in wearing a pair of boots, or shoes, impervious to water, that if it did not conduce to saving—which it does—it is so preservative of *health*, that that consideration alone should commend this composition to all who put a just estimate upon that most valuable of all earthly blessings. Wet feet is, perhaps, the cause of more distressing colds, coughs, and consumptions, than any thing else; if then, we can preserve dry feet, and thereby avoid the unpleasant and dangerous consequences which follow from wet ones, it becomes a matter of duty for us all, to avail ourselves of this preventive remedy. It is cheap and effective, and does not in the least prevent the leather from taking a fine polish. When we first read the recipe, we were satisfied, from the constituents in it, that it would make leather water-proof; but we felt it to be our duty, before publishing it, to test its virtues fully, as we are averse from endorsing anything untried. The thought here presents itself, that if agriculturists would have their harness, collars, and gearing, generally, saturated with this composition twice a year, that it would make them last as long again, besides rendering them much more comfortable to the animals that have to wear and work in them.

☞Farmers and others wishing to obtain copies of the forthcoming Report of the State Chemist, had better apply at once to their senators and delegates in the Legislature.

A Strong Certificate.

From the STEUBENVILLE HERALD, March 25, 1851.

☞The reader is referred to an advertisement in another column, which gives the details of a wonderful cure from the use of *M'Lane's Vermifuge*, which is certified to have been effected, not in Maine, nor in Louisville, nor in Oregon, but here, almost in your midst. Read it, and judge for yourselves:—

Public attention is most respectfully invited to the plain, unvarnished statement of your own fellow-citizen, Mr. Stephenson, whose child was wonderfully restored to health by the use of M'Lane's Vermifuge.

CROSS CREEK TP. near Wintersville, }
Jefferson Co. O. March 19, 1851. }

Messrs. J. KIDD & Co.—I have a little boy three years old the 17th day of this month, that has been very delicate in health for some time. After trying a great many other medicines, without receiving any benefit from their use, I was induced to try Dr. C. M'Lane's American Worm Specific, or Vermifuge, as put up by your honors—and wonderful to relate, after giving him two tea-spoons full, he passed 160 worms, some of them very large, and others not thicker than a common sized knitting needle; since which time the little fellow has enjoyed excellent health, and is at this time getting very fleshy or fat, as the old women say. And I must say, I believe that if he had not taken the Vermifuge, he would ere this have been consigned to the tomb. JOSEPH STEPHENSON.

M'LANE'S LIVER PILLS

Have now become the great Specific for Hepatis or derangement of the liver, in the most complicated forms. This medicine has done an immense amount of good in curing this fearful disease, so common throughout the United States, and as evidence of its efficiency, we will state that it is superseding every other remedy. The demand for this certain cure is unprecedented. Orders for it are coming in from all quarters, and every mail brings something of the following tenor:—

CAMBRIDGE, Ohio, Jan. 1851.

Messrs. J. KIDD & Co.—We are nearly out of M'Lane's Pills. It would be well to keep us supplied, as there is *a great demand for them at this place.*

☞Sold by Druggists and dealers generally throughout the United States. feb. 1-1t

FITS! FITS!! FITS!!!

PERSONS who are laboring under this distressing malady, will find the VEGETABLE EPILEPTIC PILLS to be the only remedy ever discovered for curing Epilepsy, or Falling Fits. These Pills possess a specific action on the nervous system; and, although they are prepared especially for the purpose of curing fits, they will be found of especial benefit for all persons afflicted with weak nerves, or whose nervous system has been prostrated or shattered from any cause whatever. In chronic complaints, or diseases of long standing, superinduced by nervelessness, they are exceedingly beneficial. Full directions accompany each box. Price $3 per box, or two boxes for $5. Persons out of the city, enclosing a remittance, will have the Pills sent them through the mail, *free of postage.* For sale by SETH S. HANCE, No. 109 Baltimore street, Baltimore, Md. to whom orders from all parts of the Union must be addressed, post paid. jan 1-1y

LIME.

THE subscribers are prepared to furnish Building and Agricultural Lime at the depot on the Back Basin, corner of Eden and Lancaster-sts., which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with WILLIAM ROBINSON, No. 15 Hollingsworth-street, near Pratt.

of FELL & ROBINSON, City Block

F. B. DIDIER & BRO.,

No. 97 North Paca, near Franklin Street,

PROPRIETORS OF THE

MD. AGRICULTURAL IMPLEMENT DEPOT

AND COUNTRY PRODUCE RECEPTACLE.

WE would be brief in our card, by merely saying that we are well supplied with everything appertaining to our line of business; and we are determined to give our sole and undivided attention to the wants and wishes of our friends, and moreover to make our various business transactions satisfactory to all.

DRILLS! DRILLS!! DRILLS!!!

We are Agents for the sale of MOORE'S CELEBRATED WHEAT SEEDER, combining as it does, many and important improvements. The *Timothy Seeder*, or *Guano Sower* is annexed to some, while others remain plain. We consider it unnecessary to say a word in praise of this master-piece of machinery, as the enviable reputation it has already acquired from a discriminating public needs nothing further from our hands.

PLOUGHS, and in fact every article required by the agriculturist in prosecuting his independent calling.

N. B.—We would also state, that our new branch, viz:—Selling COUNTRY PRODUCE, is meeting with public favor every day—it is just what the farmer has stood in need of for half a century—a place to confide his produce for sale. Our Circulars, setting forth the new features of this business can be had by addressing us, and sending Post Office directions.

HORSE POWERS and THRASHERS, warranted to perform well—warranted in workmanship to stand, (the castings, not like other patterns, excepted,) but they also warranted, and again warranted to be the cheapest and most economical patterns ever offered.

GUANO and all other kinds of Fertilizers constantly on hand.

FRUIT and ORNAMENTAL TREES.—We take great pleasure in informing our friends, that we have secured the Agency of D. MILLER'S celebrated NORTH AMERICAN NURSERIES, Pa.

N. B.—Catalogues by addressing us.

Dr. X. Bulleno's celebrated EXTERNAL and INTERNAL APPLICATION, for man and beast, entirely vegetable in its properties, and strongly recommended in cases of Rheumatism, Sprains, Galls, &c., &c., &c. for sale by us, wholesale and retail—the sole appointed Agents in U. S.

N. B.—Our friends residing down the Bay, or who consider our establishment at too great a distance up town, will have all orders entrusted to our care faithfully executed, and goods delivered to any portion of the city, free of charge—Moreover, they can ride within a square of our establishment for 6¼ cents.

N. B.—All expenses paid by us when purchase is made.

feb-1 F. B. DIDIER & BRO.

Bone Dust.

THE subscriber will furnish ground Bones, warranted free from every mixture, *or the entire quantity forfeited.* Also a second quality article, composed in part of Bones, and in part of Flesh of Animals, being a quick and powerful fertilizer, at 35 cents per bushel or $12 per ton. He has lately made such an improvement in his machinery for crushing bones, as to enable him to sell an article better than ever before offered, a sample of which can be seen at the office of the American Farmer. My Bone Dust weighs, from the manner in which it is manufactured, 55 to 60 lbs. per bushel. Until the 1st day of March next, I will fill all orders at 50 cts. per bushel.

None of my manufactured Bone Dust is sold, except at my Factory. JOSHUA HORNER,

Corner Bank and Caroline sts. Fell's Point, corner Chew and Ensor sts., Old Town, Baltimore, or orders may be left with Mr. S. Sands, at the office of the American Farmer.

I furnish to my customers, when bags are not sent, 2 bushel bags, at 6 1-4 cents each.

Reference.—Messrs. Randolph, Goilbart & Co., 158 Thames street. May 1-4t*

Large Asiatic Fowls and Eggs.

THE choicest variety of great Chin-India and China Fowls, comprising Brahma-Pootra, Cochin China, Hoang Ho, Hong Kong, Shanghai and Imperial Chinese or Mandarin FOWLS, just received from Dr. J. C. Bennett, Great Falls, N. H. Also, the best GAME BIRDS, including Sumatra Pheasant, Sumatra Ebon, Earl of Derby's, Lord Sefton's, Cheshire and English Raven Games, *all warranted pure.* I will sell a few pair of the above varieties this season, and promise an early spring supply of pure Chicks and Eggs of all the above kinds. Orders promptly attended to; Eggs and Chickens carefully forwarded to all parts of the Union. Address,

DR. G. W. LAWRENCE,

dec 1-6t* Catonsville, Baltimore county, Md.

A. E. WARNER, No. 10 N. Gay st.

MANUFACTURER OF SILVER WARE, FINE GOLD JEWELRY, and importer of BEST SILVER WARE, FANCY ARTICLES, &c. would respectfully invite the attention of those in want of any of the above articles, that he keeps always on hand, and makes to order, every variety of Silver Ware, fine Gold Jewelry, and best quality Silver Plated Ware, which he will sell on the most accommodating terms. Feb. 1-tf

HUSSEY'S
Mowing and Reaping Machines.

OBED HUSSEY is prepared to fill all orders with dispatch for his Mowing and Reaping Machines, for the harvest of 1853. Every care and attention will be given to the selection of good materials, and experienced workmen. As a large increase of sales is anticipated, purchasers are earnestly desired to forward their orders early, so as to afford time to fill them satisfactorily, and have the Machines forwarded before the rare approach of harvest.

Annexed are a few of many certificates received, showing the estimation in which these machines are held by some of our best practical farmers.

Harewood, 12mo. 8, 1852.

Having used one of O. Hussey's Reaping and Mowing Machines during the last harvest, (1852) I can state that in cutting Wheat, Oats and Cloverseed, also in mowing my crop of grass, it has fully answered my expectations, doing the work better than I ever had it done by the scythe, and at much less expense. The machine has been tested by cutting some fifty to sixty acres of grass—quite sufficient to prove its complete adaptation to mowing as well as reaping. EDW'D STABLER.

Oxford, Md., Dec 8th, 1852.

Mr. OBED HUSSEY—Sir: I have used your Reaper with such entire satisfaction, that I am but performing a duty to my brother farmers by recommending it in the strongest terms.

For sixteen years I have used a Reaping Machine, and know from experience that the most important qualities are *strength* and *simplicity*. In these respects your machine is superior to any other, and is the only one I have seen which can be safely entrusted to the management of ordinary overseers, with negro laborers. Yours, &c. TENCH TILGHMAN.

Hayes, Montgomery county, Md., Dec. 7, 1852.

I purchased in the year 1851 one of Obed Hussey's Reaping Machines—I used it that year and this year in cutting my grain; I was pleased with the machine; I consider it a valuable implement, and hope never to be without one while I continue to be a farmer. My machine was used in cutting wheat and oats—it was not designed for grass; I employed it about half the day, and reaped about ten acres of land in grain, the rest of the day was devoted to the securing of the grain; I used four horses. My machine, I believe, was of the smallest size, and was without front wheels; with wheels it would have been a relief to the horses.

I cannot speak of the relative value of this machine compared with others, having never seen any Reaping Machines but Hussey's at work. I do not think that I could be induced to return to the old mode of cutting grain by the scythe and cradle.

Respectfully yours, &c. ROBERT P. DUNLOP.

Mr. A. Talbott's letter, published in the American Farmer in August 1852. BALTIMORE COUNTY, *July* 17, 1852

To the Editor of the American Farmer—

DEAR SIR:—Having had a fair opportunity of observing the performance of Mr. Hussey's celebrated "Reaper" on my farm last season, under circumstances peculiarly calculated to test its efficiency, I think it not inappropriate to bear my testimony in its favor.

I finished cutting my grain more than a week ago. The grain was not only blown as flat as possible, but was tangled and twisted together, and lying in every direction; so much so that it would have been impossible to cut a large portion of it with the cradle. No one who saw the field believed that the machine could possibly succeed.

I take great pleasure in stating that its success was perfect and entire. It cut and gathered the grain in the very worst spots almost as well as that which was standing; and I was thus enabled to mow my crop in about one-half the time the *old fashioned* method would have required, thereby effecting a large pecuniary gain. It also cuts the grass as evenly and as close as the most expert mower. I need scarcely say that I am perfectly satisfied with it. I subscribe myself, yours, &c. AQUILA TALBOTT.

ALEXANDRIA, Va., 12mo. 11th, 1852.

It gives me much pleasure to state that I have had in use on my farm, in Montgomery county, Md., for the past two seasons, one of "Hussey's Reapers," and its operation has given me *entire satisfaction* in every respect. It appears to combine the three qualities so important to the farmer, efficiency, durability and economy; and I can, with great sincerity, recommend its general adoption. BENJAMIN HALLOWELL.

UNION TOWNSHIP, *Champaign County, O., July*, 1851.

I have for the past four seasons worked Hussey's Reaper, and unhesitatingly pronounce it vastly superior to McCormick's or any other Reaper I have seen used. WM. T. ZOMBRO.

SALEM TOWNSHIP, *Champaign County, July*, 1851.

I have had Hussey's Reaper used on my farm. It will cut 20 acres of the heaviest wheat per day, with ease. I consider it far superior to the McCormick Reaper. JOSHUA BUFFINGTON.

Ross County, Ohio, July, 1851.

I have used Hussey's Reaper, and consider it an invaluable machine. I have seen McCormick's Reaper operate, and am of opinion that Hussey's is the best machine. D. MCCONNELL.

UNION TOWNSHIP, *Champaign County, Aug.*, 1851.

I have used Hussey's Reaper four years. I prefer it to every other machine. I do not have to drive fast; and the raking is the easiest work in the field. JOHN EARSOM.

CARROLTON, *Green County, Ill., Dec.* 27, 1850.

I procured one of Mr. Hussey's Reaping and Mowing Machines from Baltimore last spring; I cut eighty acres of wheat and ten acres of oats and fifty acres of timothy with it, to my entire satisfaction; after which I cut sixty acres of clover seed with it in less than five days. I could not have saved the clover seed without the machine, so I consider I saved the whole cost of the machine in the saving of the clover seed alone.

SAM'L THOMAS.

CARROLTON, *Lebanon County, Ill., Sept.* 1850.

Mr. O. Hussey,—The four Reaping and Mowing Machines you sent, arrived safe and in good order. Their performance far exceeded our expectations; the work went on so smoothly that we scarcely knew it was hay time and harvest. If your machine had been as well known as they are now, you could have sold twenty as well as one. Yours, JONAS WARD.

OSWEGO, *Ill., Aug.* 2, 1849.

This may certify that I cut a lot of Black Sea Wheat with Mr. O. Hussey's Reaper; the wheat was so badly lodged that no McCormick Reaper or Cradle could cut it; Mr. Hussey's Reaper cut it clean and laid the bundles out of the track in good order for binding. I have seen the work done by this machine in grass; it was as good work as ever I saw done by a scythe, or better. For my choice I should rather have my grass cut by the Reaper than by the scythe. Every farmer ought to have such a machine, and every farmer I hear talk about it says the same.

PHILIP YOUNG.

BERKSHIRE, *Kane County, Ill., Aug.* 6, 1849.

We, the undersigned, having seen Mr. Hussey's Reaper work at cutting grass and grain, think it preferable to McCormick's or any other machine that we have seen. It cut wheat that could not be cut with McCormicks Reaper or a cradle. We are well acquainted with McCormick's machine.

P. A. HIXBY,	JOHN SHIRWOOD,	JAMES HESS,
JOHN GRIGGS, Jr.	SETH SHIRWOOD,	ALSON BANKER,
JOHN GRIGGS,	DAVID SHANKS,	D. C. WRIGHT,
HARRY POTTER,	ABRAHAM SHIRWOOD,	ELISHA WRIGHT.

Wye House, Dec. 20*th*, 1852.

DEAR SIR:—Having worked your Reaper for many years, I have fully tested its merits; it has proved itself to be not only a wheat saving implement, but a labor and time saving one—these are all important to the farmer. It does its work completely, regardless of the position of the wheat, if in condition to bind. Those you sent me in the spring, worked well through the harvest and proved their strength. Yours respectfully,

EDW'D LLOYD.

Forrest Hill, King and Queen Co. Va. Dec. 24, 1852.

Mr. O. HUSSEY—Sir: It gives me pleasure to state that I used your Reaping Machine in my late harvest with great satisfaction; it fully equals my expectation as a labor-saving implement, and does the work better than can be done by the cradle. I would farther state that the seven which were purchased along with mine, for my relations and friends, of this county, have given, in every instance, entire satisfaction.

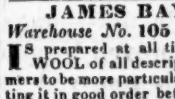
Very respectfully, WM. D. GRESHAM.

To OBED HUSSEY—Dear Sir: Having used one of your Reapers for the last two harvests, upon land a great deal of which was hilly, stony and rough, I take pleasure in saying that it has given entire satisfaction, and proved to be a very durable, well built, and great labor saving machine.

Respectfully, A. B. DAVIS.

Greenwood, Montgomery Co. Md. Dec. 20, 1852. feb 1-6t

TO FARMERS.



THE undersigned, by this method, would apprize the Agricultural community, that he is still engaged in the manufacture of the renowned *Wiley, Empire*, and other choice Plows. He also manufactures and has for sale, a number of the best and most efficient Farming Implements in use. Call before purchasing elsewhere, as his terms are such as cannot fail to please. All implements guaranteed.

☞ AGENTS for the *Wiley, Empire*, Boston, Woodstock, and other Plow Castings. A. G. MOTT.

At the old stand, No. 38 Ensor, street, and at No. 51 N. Paca street, opposite the Hand Tavern, Balt. mh-1.

JAMES BAYNES, Wool Dealer,

Warehouse No. 105 *Lombard st. near Calvert, Balto.*

IS prepared at all times to give a fair market price for WOOL of all descriptions. He would recommend to farmers to be more particular in washing their Wool, and in getting it in good order before bringing it to market, to ensure them a fair price. The demand is good, and the probability is, that it will continue so the coming season. Those having wool to dispose of, are invited to give him a call before disposing of their fleeces. Any information as to putting it up for market, &c. will be freely given.

References—B. Deford & Co., and Wethered Brothers, Baltimore—Jas. Mott & Co., and Houston & Robinson, Philadelphia. Ap. 1-1yr

The Great GOLD MEDAL.

Farmers and Planters will please notice that the Mechanics' Institute, at their recent Fair in Baltimore, awarded to E. WHITMAN & Co. **the Great Gold Medal** for the Largest and Best Display of the most useful and improved Agricultural Implements; and also, at the same time and place, they received *six other Special Medals*, awarded them for the different Implements and Machinery exhibited by them at said Institute.

dec 1 E. WHITMAN & CO. Baltimore.

CUT YOUR HAY, STRAW AND FODDER.

E. WHITMAN & CO. have more than twenty different sizes and kinds of HAY and FODDER CUTTERS, consisting of all the most improved kinds in use.

They were awarded, among their long list of Premiums at the State Fair of Maryland, held in Baltimore the last month, the First Premium for the hand and power Cutters; those in want of the latest and best improved Cutter, can obtain them by applying direct to

E. WHITMAN & CO.

dec 1 No. 55 Light street, Baltimore.

300 BAMBOROUGH PATENT FANS, which have received more than 50 Premiums at the different Fairs in the United States, for sale by

E. WHITMAN & Co.

dec 1 55, cor. Light and Pratt sts. Balto.

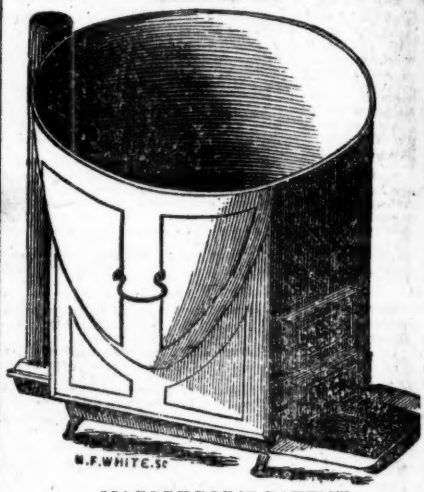
CORN SHELLERS.

500 Cornshellers, from $8 to $40, consisting of the most approved kinds now in use—among which is our new Improved Virginia Corn Sheller, which received the Highest Premium of the Maryland State Fair, held at Baltimore in October last.

E. WHITMAN & CO.

dec 1 No. 55 Light street, Baltimore.

The Best Cauldron, Furnace or Agricultural Boiler in use.



MACGREGOR'S PATENT

CAULDRON FURNACES,

OR

AGRICULTURAL BOILER.

THE Subscribers have made arrangements with James Macgregor, Jr., for the exclusive privilege of Manufacturing and selling his Patent Cauldron Furnace for the State of Maryland.

These Furnaces take less than one-half the amount of fuel to accomplish the same amount of work, taken by any thing for a like purpose, either set in Iron or Brick.

These Cauldron Furnaces boil equally as quick at the front as at the back part; consequently they are admirably suited for all purposes which require an equal and governable heat, the combustion being entirely under the control of the operator by simply moving a damper at the back part. The appearance is of the most approved style. The Furnaces having been in use and thoroughly tested for the last six years, they can be warranted with certainty.

Farmers wishing to have boiling going on during the night, so as to have potatoes and other articles ready for use in the morning, can do so with this Cauldron Furnace to their entire satisfaction, and thereby effect a saving of much time and trouble over any other article of the like purpose ever before offered to the public. This is done by means of a damper at the bottom of the pipe, by drawing which after the usual amount of food has been ignited, the liquid will continue to boil for from three to five hours without any further attention from the operator. Any person purchasing any of the above article can try it for thirty days, and if in his opinion the article does not fully sustain the above recommendations, he is at liberty to return the same, free from any deductions; and the money will be refunded in full.

ROBINS & BIBB,

Nov. 1 Baltimore Stove House, 33 Light Street, below Lombard.

AGENCY FOR THE PURCHASE AND SALE OF IMPROVED BREEDS OF ANIMALS.—Stock Cattle of the different breeds, Sheep, Swine, Poultry, &c. purchased to order and carefully shipped to any part of the United States—for which a reasonable commission will be charged. The following are now on the list and for sale viz:

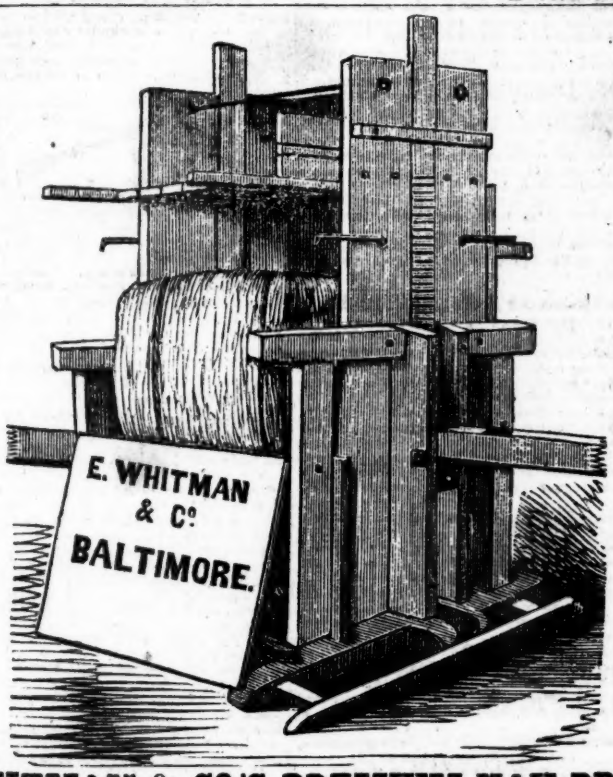
Thorough bred Short Horns and Grade Cattle
Do do Alderney do do
Do do Ayrshire
Do do Devons do do
Do do South Down Sheep
Do do Oxfordshire do
Do do Leicester do
Swine and Poultry of different breeds.

All letters, post paid, will be promptly attended to. Address AARON CLEMENT,

mh 1 Cedar st. above 9th st., Philadelphia.

THE $50 PREMIUM.

The HIGHEST PRIZE of $50 was *again* awarded to E. WHITMAN & CO., by the MARYLAND STATE AGRICULTURAL SOCIETY, at its fifth Annual Fair held at Baltimore, in October, 1852, for the *LARGEST and BEST DISPLAY of* AGRICULTURAL IMPLEMENTS and MACHINERY, being the *Fourth Time* they have taken the *Great Prize*. They were also awarded $197 in *Special Premiums*, making in all $247, which is *more* than was awarded to all the other Exhibitors of agricultural implements, thus showing that they have the *most extensive* and *best assortment of* VALUABLE IMPLEMENTS and MACHINERY. Farmers and Planters being apprised of these facts, will at once see that it is to their interest and advantage to call and examine their stock at corner of Light and Pratt streets, Baltimore. dec. 1 E. WHITMAN & CO.



100 WHITMAN & CO.'S PREMIUM HAY PRESSES.

E. WHITMAN & Co. have manufactured and sold every HAY PRESS that has ever received a Premium of any kind in the United States.

The Pennsylvania State Agricultural Society awarded them a Premium of $20 in Oct. 1851, and $40 was awarded in 1850 and 1851, by the Maryland State Agricultural Society, and again at the trial in Sept. 1852—$50 was awarded to John Merryman, Jr. Esq. for one of *WHITMAN & CO.'S MANUFACTURE OF HAY PRESSES.*

We are now manufacturing a large number of the above HAY PRESSES, many improvements added, which have been suggested by experience, and *we can now recommend our Presses as being superior to all others.*

With our experience and the facilities we now have at our new works at Canton, we are prepared to furnish a better Press and at less price than any other manufacturer in the country.

Prices of our improved Premium Presses are according to size and quality, from $75 to $150. Farmers and others in want of a good Press at low price will please give us a call.

We are also manufacturing, on a large scale, MACHINERY and IMPLEMENTS for Farm purposes of every description, and can fill orders with dispatch and on the most favorable terms. oct. 1 E. WHITMAN & CO.

HEDGES—HEDGES—OSAGE ORANGE.

H. W. Pitkin wishes to call the attention of Seedsmen and others to his Osage Orange Seed, which is now all gathered under my own immediate care and direction, or that of an especial agent, appointed for the purpose.

Loud and frequent have been the complaints against the Osage Orange by those who have attempted to grow it, and failed in making the seed germinate, and dealers have been so often imposed upon, that in some instances they have refused to keep it for sale.

This is mainly owing to the vast amount of *worthless seed* thrown into market, the vitality of which was destroyed by the boiling or fermenting process to which the apple is often subjected in extracting the seed, or by the carelessness and slovenly manner of puting up and transporting.

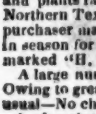
As the surprising properties of the Osage Orange as a hedge plant is just beginning to be known, and the demand for seeds and plants rapidly increasing, I shall continue to repair to Northern Texas for my yearly supplies of seed, so that the purchaser may always rely upon a fresh and genuine article, in season for Spring sales and planting. Each sack will be marked "H. W. Pitkins' Osage Orange Seed."

A large number of No. 1 plants ready for setting in hedge—Owing to great success in raising they will be sold lower than usual—No charge for packing, &c.

A descriptive pamphlet, containing full directions for planting seed, cultivating the hedge, &c., will be forwarded on application.

All orders should be addressed to H. W. Pitkin, Manchester, Connecticut,—or during the winter, to the care of John H. Heald, 77 Poydras Street, New-Orleans. Dec 1-5t.

Fruit and Ornamental Trees and Shrubbery.



THE subscribers offer for sale the present fall at their nursery Garden and Green House establishment, West Chester, Pa. a large and select assortment of the different kinds of *Fruit Trees*, which they offer by wholesale or retail at reasonable prices, viz: Apple, Pear and Peach trees by the thousand; Plum and Cherry trees; Apricots, Nectarines, Filberts, English Walnuts, Strawberries, Raspberries, Gooseberries, Currants, in great quantity; Quinces, Almonds, hardy and tender Grape Vines. Also, a fine collection of Dwarf Pears on Quince, embracing some 25 or 30 varieties, and well supplied with fruit buds, for bearing the coming season.

Also, *Evergreen and Ornamental Trees and Shrubs*, both of native and foreign growth, of all the most desirable kinds for our climate; Norway Firs, Balm of Gilead, Austrian and Scotch Pines, Lebanon and Deodar Cedars, Cryptomeria Japonica, Chili Pine, Himalayan Spruce; several varieties of Box, Arbor Vitæ, Hollies, 9 varieties of Junipers; English and Irish Yew. Also, Hardy Roses, and Green House plants, Bulbous roots, Tulips and Hyacinths; Verbenas, imported Phloxes, Dahlias—embracing 40 varieties, imported the present season; English Double Hollyhocks, very choice Chrysanthemums, &c., together with all other articles usually found in similar well conducted establishments.

☞ Orders by mail carefully attended to, and trees and plants carefully packed, and shipped from Philadelphia, to any point of the Union.

☞ CATALOGUES furnished to all post paid applications.

PASCHALL, MORRIS & CO.
Nursery, Seedsmen & Florists,
Jan. 3t. West Chester, Pa.

FINE GROUND PLASTER.

THE subscriber respectfully informs the Farmers and Planters that he has on hand a large and selected stock of an excellent quality Lump Gypsum, received direct from particular quarries, (the purity of which he has tested by various analyses), from which he is manufacturing a superior article of Ground Plaster—warranted pure—each barrel of full weight, and in good shipping order—marked with his own name. For sale on the most favorable terms.

WM. A. DUNNINGTON,
Steam Plaster Mill Co. Hughes Street, on the Basin.

☞ Orders received at Messrs. Asa Needham & Son's, No. 104 Light Street Wharf. Jan 1-4t

Mexican Guano.

GUANO—700 tons Mexican Guano, in store and for sale by STIRLING & AHERNS, 54 Buchanan's wharf, at $25 per ton of 2240 lbs.

We have the following certificate from Dr. David Stewart, who analyzed the Guano. "It contains the largest proportion of Phosphates I have ever met with—where they are deficient in a soil, this Guano is cheaper and much more permanent than the Peruvian. Signed,

June 1-tf. DAVID STEWART."

F. D. Benteen & Co. 181 Baltimore st., Balto

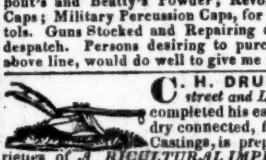
HAVE FOR SALE a large assortment of MUSIC, and are constantly publishing and adding to their stock all the new and standard publications of the day.

Having rented an additional warerooom for PIANO FORTES, a very large assortment will always be kept for sale, from the best factories in the country, of 6, 6 1-3, 6¾, 6 3 4 and 7 octaves, in rosewood cases, with full metalic frames, from the plainest to the most costly. Among the assortment will always be found the celebrated Pianos of Chickering, Boston, and Nunns & Clark, N. York, both of which makers received gold medals at the World's Fair in London. Also, PRINCE & Co's. ORGAN MELODEONS, intended to supply the place of an Organ in small churches, Seminaries, family worship, &c. Prices $45 and $75.

☞ Orders from the country for Pianos, Guitars, Music or any article in our line of business, will be as fully and faithfully executed as if the parties were personally present.

A liberal discount made to Dealers, Seminaries, Professors, &c. feb. 1-6t

WILLIAM HARRIS, GUN, RIFLE AND PISTOL MANUFACTURER, *No.* 65 *South st.* Baltimore, Keeps constantly on hand a large assortment of Bird and Ducking Guns, (double and single barrelled.) *All Guns warranted to shoot correctly.* Also, Pistols of every style and finish, such as Revolvers, Self-cocking Rifle Barrel. Rifles of very superior quality at reduced prices. My stock comprises every article in the sportsman's line. Diamond grain Powder; Dupont's and Beatty's Powder; Revolving Pistol Percussion Caps; Military Percussion Caps, for muskets and U. S. pistols. Guns Stocked and Repairing done with neatness and despatch. Persons desiring to purchase any article in the above line, would do well to give me a call. nov 1-6t



C. H. DRURY, *corner of Camden street and Light street wharf*, having completed his establishment with Foundry connected, for the making his own Castings, is prepared to furnish all varieties of *AGRICULTURAL IMPLEMENTS* and *CASTINGS*, made to pattern of the best material.

The following is a list of PLOWS kept constantly on hand: Davis, of the different numbers, for wrought and cast shears, S. & M., Chenoweth, Wiley, 2 and 3 furrow, No. 0, Hill side, No. 1 and 3 Connecticut—Beach Improved or Posey Plow, with common Davis cast shear—Self-sharpener or wrought shear—Corn Cultivators, plain and expanding—Tobacco do. Wheat Fans—Corn shellers with double hopper—Old Vertical and Virginia sheller—Harrows—superior Pennsylvania made Grain Cradles—Revolving Horse Rakes—Cylindrical straw Cutters, &c. &c. Horse Power *GRIST MILLS*, a very useful and saving article, and coming into general use. *HORSE POWER AND THRESHING MACHINES*, of these I need not say any thing, as wherever they have been in use any time, they are preferred to all others.

C. H. D. will this year make a smaller size Power & Thresher, (price of Power, $100, Thresher, $50, Band, $10, or when taken together, complete, $150 cash.) Persons in want of Implements made of the best material, and put together in the strongest and best manner to answer the purpose for which they are intended, are invited to call on the subscriber. fel

PERUVIAN GUANO.

THE undersigned, exclusive Agents of the Peruvian Government, for the importation and sale of Guano into the United States, have the honor of notifying to the farmers and dealers of this country, that they have settled in this city a branch of their Lima house (Peru) under the especial direction of their partner, Mr. Frederick Barreda, with the object of performing all the business relating to that Agency in the United States.

Following the views of the Peruvian Government, whose wishes are to establish a fixed and convenient price for this manure, offering the same facilities to farmers and dealers of obtaining it from first hands, the undersigned have decided to sell the Guano at the rate of $46 per ton of 2.240 lbs., put into good bags for all quantities above 20 tons, with due notice to purchasers, that all duties, charges or fees, now imposed, or that may hereafter be imposed upon the introduction of Guano by the laws of the different States into which it may be imported, will be paid by them, in addition to the above named price of $46 per ton.

Full cargoes of Guano can be purchased and delivered at any safe port of entry in the Chesapeake or Delaware Bays, or their tributaries.

The consignees only warrant as proceeding from Peru the bags of Guano marked with their true mark, and sold by them or their Agents.

For further particulars apply to

F. BARREDA & BROTHER,
No. 62 S. Gay st., Baltimore, or to
T. W. RILEY, 42 South street,
July 1-1yr. Our Agent in New York.

SINCLAIR & CO'S PREMIUM IMPLEMENTS.

In addition to the flattering list of Premiums awarded to R. SINCLAIR, Jr. & Co. by the Maryland State Agricultural Society, (*a record of which will be found in this paper,*) [see reports of Judges at the late Cattle Show] showing a preference in our favor for nearly all the articles exhibited by us of prominent importance; we will add, in addition, the late Talbot county award, which, coming from the source it does, are quite as important (if not more so) as those received from the State committees. It will be seen by the list that our county Premiums were nearly a SWEEPSTAKES, notwithstanding the comparative equal competition, viz:

Sweep Horse Power, First Premium; Thrashing Machine & Straw Carrier, ditto; also, a like Premium for the *best* Corn Sheller, Straw Cutter, one and two horse Plows—Patuxent Nos. 7 and 9; Wheat Screens, Churns, Clover Gatherer, ditto Thrasher and Cleaner, Gang Plow, Cultivator, Harrow, Clod Roller, Seed Drill, Corn Mill, Subsoil Plow, Fodder Cutter and Grinder, Corn and Cob Crusher, Reaping Machine, (Hussey's,) and Revolving Plow Coulter.

R. SINCLAIR, Jr. & Co.

dec. 1 Baltimore.

FOR SALE.

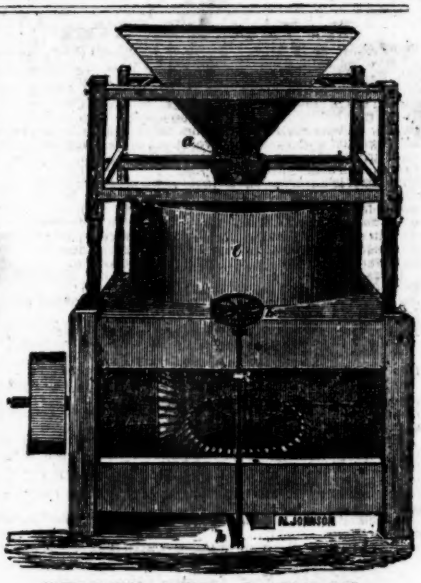
IMPROVED SHORT HORN AND ALDERNEY CATTLE, of different ages, the greater part of them bred on the farm of Thomas P. Remington, Esq. Many of the Short Horns are descendants of the herd of the late Mr. Bates, of Kirkleavington, England, justly celebrated as one of the best and most scientific breeders of the age.

The Alderneys are from the best imported stock. The Cows of that breed are unrivalled as rich milkers. Apply to

AARON CLEMENT,

Agent for the purchase and sale of improved stock, &c.

sept 1-tf Cedar st. above 9th st. Phila.



SINCLAIR & CO.'S

AGRICULTURAL IMPLEMEMT WORKS

AND

SEED STORE,

Nos. 58, 60 and 62 Light street,

BALTIMORE,

Manufacturers of HORSE POWERS and THRASHING MACHINES, DOMESTIC GRIST MILLS, and Negro Hominy do.

Rice Thrashing Machines,

NEW AND VALUABLE.

CORN AND COB CRUSHERS,

Several sorts, for Farm and Mill use.

CORN SHELLERS,

Eight sorts, for hand and horse power.

WHEAT AND CORN FANS,

With the latest improvements.

APPLE MILL AND PRESS,

A combined Machine, very compact and excellent.

R. SINCLAIR, Jr. & Co.

oct 1 Manufacturers and Seedsmen.

New Variety of Sweet Corn.

MESSRS. HOVEY & CO. *No. 7 Merchants Row, Boston,* would respectfully inform their friends and the public, that they have purchased the entire stock of *the Old Colony Sweet Corn*, raised by the Rev A. R. Pope, and described by him in the Magazine of Horticulture, Volume XVI. page 539. It is a true hybrid and the most remarkable variety ever produced. It was raised in 1847, from the Southern White Corn, impregnated with the early Sweet Corn of New England. The ears are of remarkable size, containing *sixteen, eighteen* or *twenty*, and sometimes *twenty-four rows each*. In its productiveness it is unsurpassed, a single stock planted after the middle of June producing six ears. It is the richest, sweetest and most delicious corn known. An analysis of it, and several other sorts, by Dr. C. T. Jackson, shows that it is more abundant in saccharine matter than any other variety, its composition being "dextrine, sugar, and phosphates," while the common varieties contain considerable "oil and gluten."

It has been exhibited before the Massachusetts Horticultural Society for three years, and has not only received the commendation of the Society, but has been awarded the following prizes

1850. For a new variety of Sweet Corn..... $2
1851. For a new variety of Sweet Corn, called the Old Colony, 3
For superior specimens of the Old Colony Sweet Corn, Silver Medal..... 5
1852. For fine specimens of Old Colony Sweet Corn..... 2

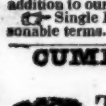
The Committee on Vegetables, of the Massachusetts Horticultural Society, in their Report for 1852 remark, "That the Old Colony Sweet Corn, raised by Mr. Pope, we recommend as worthy of cultivation by all."

The Old Colony Sweet Corn, though not as early as the Common Sweet, is sufficiently so to produce a perfect crop in New England. Two sowings, one in May and the other in June, will supply the table from July until frost. All who have eaten it, pronounce it the most luscious variety, and an invaluable addition to our esculent vegetables.

☞ Single Ears, 25 cents each. The trade supplied on reasonable terms. feb. 1-1t

CUMBERLAND NURSERIES,

Near Carlisle, Pa.



THE Proprietor of the above Establishment, in drawing the attention of the public to his present stock of Fruit, Shade, Evergreen, and Ornamental Trees, Shrubs, Plants, Vines, &c., would call especial attention to his stock of well-grown Apple Trees, embracing one of the most complete collections of varieties to be found in the country.

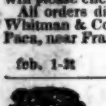
As evidence to this last assertion, permit him to draw your attention to the Reports of the various Horticultural and Pomological Societies, as well as State Fairs, held in this and the adjoining States for the last few years.

All trees carefully labelled and packed for distant transportation, and no further charge than to cover cost.

☞ Catalogues given gratis to all post paid applicants, who will please enclose a Post Stamp to prepay the same.

All orders directed to the Proprietor, Carlisle, Pa., or to E. Whitman & Co. corner Pratt and Light sts., or Didier & Bro., Paca, near Franklin street, will be punctually attended to.

DAVID MILLER, Jr.,
feb. 1-3t Proprietor.



Fruit Growers, Attention.

I have discovered a mode of rendering all kinds of Fruit and Shade Trees obnoxious to vermin at all seasons of the year. The Yellows in the Peach Tree are also cured by it. The application is cheap and simple.

I have also a method of preserving Fruit in large or small quantities for several years, free from Rot, suiting either for home consumption or exportation. Persons wishing information, by enclosing $1 to J. W. WILLIAMS, Pottstown P. O., Montgomery Co., Pa., will have the recipes sent by return mail. fe 1—3t*

Fruit and Ornamental Trees for sale.

90,000 PEACH TREES of one and two years' growth from the bud; 30,000 Apple; 2000 Cherry; 3000 Dwarf Pears, each containing all the most esteemed varieties and of large size. Also Plums, Apricots, Nectarines, Almonds, Grape Vines, Currants, Raspberries, Strawberries, &c. 30,000 Seedling Silver Maples, of one and two years' growth; also, a large quantity of Deciduous and Evergreen Ornamental Trees, of large size. Persons residing at the South and West should send their orders early. Catalogues, with prices annexed, will be sent to all post paid applicants.

feb. 1-2t* ISAAC PULLEN, Hightstown, N. Jersey.

20,000 Osage Orange Plants,

FROM Seed sown last spring in a deep, rich soil. The Plants having been well cultivated, are stocky and strong. Apply at (or address through the post office) P. COYLE'S National Agricultural Warehouse, Washington, D. C. feb 1-3t*

ROBERT B. PORTER,

IMPORTER OF HARDWARE,

AND Dealer in Bar Iron, Steel, Castings, Springs, Axles, Mill, Pit, Hand and Circular Saws, Axes, Hatchets, Wrought and Cut Spikes and Nails, Patent Horse Shoes, Anvils, Vices, &c. Agent for Rees & Hoyt's Premium Leather Hands, Goodyear's Metallic Packing—Foundry and Smiths' Bellows, for sale on best terms at No. 58 PRATT STREET, Baltimore. feb. 1-3t

DEVON OXEN—A yoke of Devon Oxen, not over 6 years old, well broke—they were purchased from Mr. Geo Patterson, when 2 years old, and have not been much worked—are in good order, and worthy the attention of those wanting such animals. Price $150, delivered in this city—Apply to Dr. BAER, at Sykesville, Carroll Co. Md. fe 1-1t

Poudrette, Bone Black, &c.

POUDRETTE, from the Lodi Factory.
ANIMAL CARBON and PULVERIZED BITUMINOUS COAL, for sale in lots to suit purchasers by
WILLIAM CHILD,
feb 1-2t* No. 76 South street, Bowly's wharf.

Bone Dust, Plaster & Ground Oyster Shells.

THE subscriber keeps constantly on hand, at his Mill, No. 179 MONUMENT STREET, a large supply of PURE GROUND PLASTER, and UNADULTERATED BONE-DUST. His machiney being all new, and on improved principles, he can consequently furnish the above articles at the lowest prices. He has also GROUND OYSTER SHELL, which he is desirous of introducing; and being satisfied of its fertilizing properties as a manure, he offers it for sale at 14 cents per bushel, which weighs nearly twice as much as unground Oyster Shell, and more than twice as much as burnt Oyster Shell, and containing all the animal matter, which is expelled by the process of burning, and 2 per cent. of phosphates; therefore, in comparing their intrinsic values, we find that one bushel of ground Oyster Shell, is worth more than twice as much as one bushel of burnt Oyster Shell. (See essay by Editor of the American Farmer, Dec. No. 1852.) Feb. 1-2t* JOHN BARKER.

FARM FOR SALE.

THE Subscriber offers for Sale, a small FARM, 4½ miles from Ellicott's Mills, and 14½ from Baltimore—on a good road, nearly the whole of it turnpiked. It contains 137 acres, 15 of which is wood, the balance arable land; 18 acres in meadow. The land is a kind soil, susceptible of easy cultivation; well watered and fenced in, and the neighborhood excellent. The improvements consist of a new frame Dwelling, with stone basement, and a Stable; a young Orchard of fruit trees, from a first-rate Nursery. Any further particulars will be made known on application to Mr. S. SANDS, at the Office of the Farmer, or to the subscriber, at Ellicott's Mills, who will show the premises. Terms will be liberal.

feb 1-tf EZEKEIL MILLS.

IMPROVED BREEDS OF FOWLS.—A few pairs of grey, red and yellow Chittagong Fowls, $8 to $10 per pair, last summer's growth. Eggs of the same, $4 per dozen.

Also—A few young SOWS, full Chester breed, 2 to 5 mos. old. Price $5 or $10, according to age. Apply to
C. WARNS,
Elk Ridge Landing P. O., Howard Co., Md.

☞ One dozen HIVES OF BEES, at $6 per Hive, deliverable in Baltimore. Apply as above. Feb. 1-1t*

STOCK WANTED.—The undersigned has frequent enquiries of late, for Improved Stock, and requests those having Durham, Devon, Ayrshire and Hereford Stock, and their crosses, for sale; to furnish him with a list, with their ages, price delivered in this city, milking qualities, and other particulars. Chester, Suffolk, China, Berkshire and other breeds or HOGS, with their crosses—and full bred South Down, Cotswold and Leicester SHEEP.

Feb. 1-t SAM'L SANDS, office American Farmer.

CLAIMS FOR REVOLUTIONARY PENSIONS and BOUNTY LANDS, under the new Laws, prosecuted by
F. E. HASSLER, Washington City, D. C.
OFFICE, 4½ street.
N. B.—LAND WARRANTS wanted.
VIRGINIA LAND SCRIP wanted. feb. 1-1t*

Important to Purchasers of LUMBER.

THE undersigned is selling SHINGLES, LATHS, PICKETS, CULLINGS, WEATHERBOARDING, &c. at the lowest cash prices, if taken from the wharf, lower end of McElderry's wharf, opposite the State Tobacco Warehouse.

June 1-1y ROBERT HOOPER.

AMERICAN FARMER.

BALTIMORE, FEBRUARY 1, 1852.

TO CORRESPONDENTS.—*Colza—Rape—their Culture.*—In compliance with the request of a correspondent from *Warren Co.* Va. we have prepared an article upon these subjects, which will appear next month. Our friend from Buckingham will be answered in our next.

ASHES ON GUANOED WHEAT.—A subscriber in Virginia puts this question to us:—

"I have a field of 100 acres which I manured with 200 lbs. of guano the acre last fall, and I have a little over 2000 bushels of slaked ashes, but am in doubt whether to apply it to my wheat crop, or to my corn crop next spring. I have some fears that if I give it to the wheat, that it may drive off the ammonia of the guano, and thus rob the wheat of the most efficient elements of the guano. I have, therefore, concluded to ask you whether my apprehensions of danger are well founded?"

To this we reply:—1. If our correspondent's ashes is slaked, he may apply them to his wheat crop that has been guanoed, without the least possible danger of harm resulting therefrom. Slaked ashes are always in a carbonate form, and cannot "drive off the ammonia." Besides, we believe that the potash, and other inorganic substances in the ashes, will tend to increase his wheat crop. The quantity of potash in guano, is, comparatively speaking, inconsiderable, so that if the soil be deficient of it, the application of a top-dressing of ashes will prove of great value, as besides potash, they contain all the other inorganic subtances which enter into the wheat plant.

The *Southern Cultivator*, published at Augusta, Ga. and the *Farmer and Planter*, at Pendleton, S. C. each commenced a new volume 1st January—These journals are most ably conducted, and should be, and we hope are, well sustained by the planters of the South.

Field and Garden Seed.

500 BUSHELS CLOVER SEED.
500 bushels TIMOTHY do
3000 do HERD or RED TOP.
1000 lbs. WHITE CLOVER.
300 bushels ORCHARD GRASS SEED.
200 do RAY GRASS.
500 lbs. LUCERN.
200 lbs. ALSICK or HYBRED CLOVER.
200 bushels Extra Early PEAS and BEANS,
All of which will be sold at the lowest market price, by
C. B. ROGERS, No. 29 Market st. Philadelphia,
feb 1-2t Seed and Agricultural Warehouse.

AGRICULTURAL IMPLEMENTS.—LABOR SAVING MACHINERY.—*GEORGE PAGE, & CO.* Machinists and Manufacturers, Baltimore st. West of Schrœder st. Baltimore, are now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in their line. They can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $190, and each simple, strong and powerful. Their *Horse Power and Thrashing Machine*, they are prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planter; Portable Tobacco Press; Portable Grist Mills complete, $165. feb 1

GUANO—GUANO.

500 TONS PERUVIAN GUANO, direct importation, and *warranted equal in quality* to any in the market. The Guano is put up in good strong bags, and is in fine shipping order. For sale in lots to suit purchasers, at the lowest market rates, by
WM. ROBINSON, No. 4 Hollingsworth st.
near Pratt st. wharf, Baltimore, Md.
Also, PATAGONIA GUANO, BONE DUST, Building and Agricultural LIME, for sale on the best terms. je. 1-tf

FOR SALE, at 25 per cent. less than they are actually worth, 1 of E. WHITMAN & Co's 2 HORSE RAILWAY POWER THRASHER AND STRAW CARRIER, complete—thrashed about 1500 bushels wheat—price $140, cost now, $175.50. Also, a one horse Power and Thrasher, complete, of same make, and in good order—price $75. Inquire at this office. feb 1

KETTLEWELL'S

Compound of CHEMICAL SALTS and PERUVIAN GUANO,

His Compound of Potash and Ground Plaster,

His Compound for the special growth of the Tobacco Plant,

AGRICULTURAL SODA, POTASH, OIL OF VITRIOL,

PURE GROUND PLASTER,

With every description of CHEMICAL RESIDIUM for the improvement of CROP and LAND.

The undersigned, in again presenting himself, and his claims, to the Agricultural interests of the country, has need to say but little.

His combination of *Salts* and *Guano* has been tried the past season by hundreds, and must speak for itself. He has made no effort to investigate results, so far as they can *now be determined;* but he knows what the Compound contains—the elements of which it is composed, and *that it cannot fail.* He therefore assumes with *unyielding confidence,* that wherever this "Compound" was correctly and carefully applied, *upon every variety of soil, during the past year,* that the appearance of the grain at this time must be satisfactory to the farmers, in comparison with Guano, or any other manure, and if satisfactory now, he will be far more so, when *the yield is measured,* and he can fully appreciate the *permanent improvement* which the application *has given to his soil.* The undersigned firmly believes that this compound of "Guano and Salts," is fully as valuable for its lasting benefit to the land, as in its prompt return of a large crop.

Guano alone is not thought to be a good corn manure. This opinion is based upon experience, and is most extensively entertained. It stimu-

lates powerfully, and the rapid and ponderous *growth* of the *stalk* is pleasant to the farmer's eye, while the yield of corn is too frequently *a matter of sore disappointment*. In many sections, its use as a corn manure has been entirely discontinued; and as a corn crop has of late years become the most valuable one a farmer can raise, the subject involves a question of profound interest, and worthy of investigation. But as a *Corn, Potato, Oat* and spring *manure*, the undersigned challenges a comparison, without regard to cost, between Guano alone, or any other manure, and his "Compound of Chemical Salts and Guano." He as firmly believes that for a spring crop, to both crop and land, one ton of his Compound is of more value than 1½ tons of Guano, without regard to price, as that he moves and breathes—that such is his conviction, after the above declaration, no man who knows the undersigned will doubt his sincerity. He makes exception to *no manure* offered to the public, and let those who doubt, try and decide.

As a top-dressing, this Compound has no superior for Wheat, Rye, Grass, &c.

In its application for a Corn crop, the Compound of "Salts and Guano" can be applied either in the hill or broadcast. When used in the hill, no apprehension need be felt in consequence of the seed corn coming in contact with the Compound; the stimulating properties of the "Guano" being "sulphated" by the elements of the Salts, no harm can result. A larger yield would undoubtedly result from this mode of application for an oat crop, sown broadcast, and harrowed in, as with wheat.

The undersigned, with profound gratitude to all who have sustained his enterprise, anticipates this as his last appearance before the public, his demand being fully adequate to his capacity in procuring materials to manufacture the Salts, the past season, as it was well known, presenting a demand much greater than he could meet. And therefore, for the better understanding of all concerned, he republishes the basis upon which the combination of the Salts and Guano first attracted attention, so clearly and plainly set forth in the commnnication of that able and accomplished Chemist, Dr. David Stewart, as also an additional letter from him, giving the final result of his experiment with this Compound, as a corn manure. He also republishes his letter in reference to the mixture of *"Potash and Plaster,"* and its action upon soils. This article deserves the most deliberate consideration of all who are renovating their lands.

It may be proper to remark, that no Plaster should be used where the Compound has been applied; it would be a useless waste of money. The farmer or Planter can mix the Guano and Salts with entire facility. Nothing more is required than a trusty servant—shovels—a plank floor—good sieve, and a careful observance that the Guano and Salts are well pulverized and thoroughly mixed.

Analyses of every description of soil, made by one of the most accomplished and capable Agricultural Chemists in the country, at the low price of $5. A pint of earth, taken from the surface, eight to ten inches deep, directed to the undersigned, will always receive prompt attention.

TERMS—Compound of best Guano and Salts, half and half, $36 per ton; ⅓ Guano and ⅔ Salts, $32 per ton; RENOVATOR, or CHEMICAL SALTS, $20 per ton; BIPHOSPHATES, $4 per bbl.; PURE GROUND PLASTER, an article of universal use, and varying from 35 to 95 pr. ct. of gypsum, its only fertilizing element, $1.25 per barrel; Mixture of *Ground Plaster and Potash*, the latter element indispensible for the growth of the Tobacco plant, $2.50 per bbl.—this mixture should command serious attention. All sales cash, *or interest added upon 4 months negotiable and acceptable paper.*

NOTICE.—The undersigned, in announcing his agents, cannot but express the respect he entertains for the attention they have paid to the introduction of his article, at both trouble and vexation, without any commensurate profit. Their motives have been the public good, and the promotion of an enterprise which they were led to believe was deeply interesting to their Agricultural friends and correspondents. Those who order through them can procure his Compounds upon terms fully as moderate as if received direct from him, and with far more certainty, as their orders will *always receive the preference*. He has no other way of showing his gratitude for the efforts they have made to extend his enterprise.

JOHN KETTLEWELL.

Office at the wholesale Drug Store of Ober & Co. corner of Lombard and Hanover sts.

FACTORY, Federal Hill, Baltimore.

AGENTS.

Messrs. DEANE & BROWN, Richmond, Va.
" RHETT & ROBSON, Charleston, S. C.
" N. A. HARDEE & Co. Savannah, Ga.

And Messrs. WATKINS & MORTON, of Petersburg, will receive orders that cannot be received via Richmoud.

From the American Farmer.

It will be remembered by all who have read the advertisements of the undersigned, in the American Farmer, and elsewhere, that he frankly admitted the superiority of Peruvian Guano in the rapid production of a Wheat crop, although he as firmly contended that his Salts were far more lasting, much better adapted to the growth of *clover*, with a decided advantage to the land, for a rotation of crops. To this opinion he still adheres, and it has been CONFIRMED by the most extensive experience.

The opinion which the undersigned entertained, that a mixture of his Chemical Salts and Peruvian Guano, would make one of the most prompt, cheap, and what is of more *importance, lasting manues*, known to the age, was most favorably entertained by the best practical and scientific chemists in the country, and has now been demonstrated by unquestionably, one of the

most accomplished and able chemists we have. All who know Dr. David Stewart, will admit that as an agricultural and scientific chemist, he is second to no man in the nation.

For the conclusive and intelligent reasons upon which these opinions are based, the undersigned confidently refers to the communication herewith published. Now the undersigned can testify from his own experience, not only to the liberality and enterprise with which the agricultural community seek the best remedy to renovate their lands, and increase their crops, but when disappointed in their full anticipations, the generosity and forbearance which they manifest to the manufacturer, when they believe his efforts are honest and fair. The undersigned asks no more—wants no more than such a trial. His own faith in its entire and unqualified success, is as strong and stern as was that of the ancient prophet. He stands not alone in this opinion; it is firmly sustained by those who are disinterested, and whose opinions are not only entitled to respect from every quarter, but should disarm the most skeptical from any suspicion of quackery or humbug. The farmer cannot lose by buying this mixture. It contains every element the soil requires. There is nothing absent—nothing deficient. Instead of exhausting the soil, it gives it permanent improvement. The undersigned, therefore, trusts and earnestly requests that the farmer who buys five tons of guano, should try, side by side, fairly and without prejudice, one or more tons of this compound.

What will it cost?

½ ton best Peruvian Guano, will cost say	$22 50
½ ton Chemical Salts, will cost	10 00
	$32 50

therefore, is the cost per ton, not as much as Patagonia, nor much more than Mexican Guano, and $13 less than Peruvian, whilst the undersigned sacredly avers his firm belief, that for crop and land, wheat and clover, it is really worth $10 per ton more than even the best Peruvian Guano.

300 lbs. of the best Peruvian Guano would cost say, $6.90 per acre; 300 lbs. of the Salts and Guano would cost $5.04 per acre, nearly $2 less than Guano alone; 400 lbs. to the acre would cost $9.72, or 20 cents less than 300 lbs. of the Guano alone.

½ of a ton of the best Peruvian Guano would cost say, $15.33⅓; ⅔ of a ton of the Salts would cost say, $13.33⅓, or $28.67 per ton. Now the undersigned does not bet, and it is no argument, but he will agree to present One Hundred Dollars each, to the State Agricultural Societies of Maryland and Virginia, if any advocate of Patagonian, Mexican or African Guano, will do the same, upon the condition that this compound will yield a *better* crop, and afford *more improvement* to the land than either of the Guanos specified. The undersigned means the last preparation, costing $28.67 per ton; and the party losing, to pay the forfeit. Quantity, soil and cultivation to be the same, under or by the direction of the Presidents of either of the above societies.

If the undersigned mixes this compound, there will be a charge of $2 per ton, which is the actual cost. In all cases the very best Peruvian Guano will be used, and a forfeiture of *One Thousand Dollars* paid, where the quantity of Guano directed, is found deficient by competent analyzation. A certificate under oath, will also be furnished, whenever required, to each order. When the Farmer makes this mixture himself, great care must be taken to have the mixture complete—pulverize it as fine as possible, and then sieve it through the finest sieve. The Guano becomes entirely inodorous—after this is carefully done, it must *not be applied by being ploughed down*, as when Guano is used by itself, but sown *broadcast when the land is in order, and* HARROWED *in*, in the same quantity precisely that guano alone is used. *Particular attention must be paid to this*, as the Ammonia in the Guano is sulphated, and therefore sinks into the soil, instead of escaping from it. No commission will be charged for the purchase of Guano, but its cost must be *invariably paid in cash*, it being a cash article. Great care will be taken in buying Guano by *analytical tests*. This manure will be put up in barrels or bags, and as before stated, the mixture being inodorous, they may be serviceable for other purposes. Now let all who have faith enough to make the experiment, order as soon as possible, so that there may be ample time for care, and no disappointment. Early orders are important, because the article will not be kept on hand, but mixed in conformity with orders, and the exact proportions of Guano and Salts, as may be directed.

The undersigned has been for four years laboriously engaged in the manufacture of chemical manures, and he has been generously supported by the farming interest, *not having one barrel of his compounds left the past season*, and for which he thus publicly returns them his respects and gratitude. And while he knows that the same energy—the same amount of capital, and enterprise, would have yielded him more profit in almost any of the active business pursuits of life, yet at the start it was his fancy, and time has made it "a labor of love." In conclusion, he refers to any respectable citizen of Baltimore who knows him, for how far he is deserving of confidence, and having but recently been the high Sheriff of the city, he is tolerably well known.

To his old friends and customers who have always preferred his pure Biphosphates and Renovator to any other manure, he earnestly solicits a continuance of their favors. He will have an ample stock on hand, and all orders will be promptly filled. Also, constantly on hand, the very best "GROUND PLASTER," an article in the purchase of which farmers cannot be too careful. Also, "GROUND PLASTER AND POTASH," "AGRICULTURAL POTASH," &c. &c.

JOHN KETTLEWELL.

P. S.—The above mixture must be applied

broadcast at seeding time, and harrowed in with the seed, before, at, or after seeding.

The undersigned has made arrangements to have a qualitative analysis made of all soils forwarded to him at the low price of $5, and by one of the ablest chemists of the country. When will farmers appreciate the value and importance of this trifling cost? In no other way could they be so well repaid for so small an outlay.

Dr. Stewart's Letter.

To John Kettlewell, Esq:—

Dear Sir:—A series of experiments have been recently published in the Journal of the Royal Agricultural Society of England, which were intended to test both the absolute, and relative value of Agricultural Salts, (or compounds, such as you prepare,) for the renovation of worn-out lands. As these were not made to support any *theory*, or published to promote any *private* interest, it occurs to me that our agriculturists may place more confidence in them, than they do in theories of our own scientific agriculturists, or the ISOLATED experiments with these Salts by practical agriculturists, made by Baron Liebig in Europe, and Hon. R. Johnson and others in this country—(See Liebig's Letters on Ch., page 482, and vol. vi. page 149, Am. Farmer.) As these experiments were repeated during seven years, commencing in the year 1843, and enable us to account satisfactorily for the failure of the best Peruvian Guano, and also the failure of agricultural salts *on some farms*,—I think you will advance the public good, as well as your own interest, by using these truths, so faithfully established, in the application of your Renovator for the improvement of worn-ont lands.

The report of these experiments is a very long one,—about 40 pages of the Journal (No. 27—1851) exclusive of several large charts. The facts are ours—the conclusions are his. We will therefore make the following propositions, and refer to these facts for authority.

1st. The experiments were tried on what we would call good land in *this* part of our country, as it produced 17 busheis of wheat per acre, for 7 years, without any manure, after having been exhausted by previous cropping. He says (p. 5)—"and having selected a field, which, agriculturally considered, was exhausted, we have grown the same description of crops on the same land, year after year, with different chemical manures, and in each case with one plot or more, continually unmanured, and one supplied every year with a fair quantity of farm-yard manure. In this way, 14 acres have been devoted to the continuous growth of wheat since 1843." "This field had been exhausted by a full rotation of Barley, Peas, Wheat and Oats, *without any manure*—when taken for experiment in 1844. The field of 14 acres was divided into about 20 plots"—see p. 9. * * *

He also says, (see page 23)—"It is a remarkable fact, that from plot 2, (the unmanured one) we have carried from the land 7 successive crops of wheat, grain, and of straw, without any manure whatever, and that under this treatment there are no signs of diminished fertility; (*a*) for the average of the 7 seasons collectively, is about 17½ bushels of dressed wheat, and about 16 cwt. of straw per acre."

2d. "Our next proposition is, that these experiments were tried on soil that naturally contained an abundance of all the agricultural salts or mineral manures," (see page 23)—"Thus, the results are alone sufficient to show, that whatever the deprivation by the previous cropping, the soil still contained (relatively to the ammonia available from *natural* sources) an *excess* of the necessary mineral constituents"—But that even in this soil, the addition of purely mineral manures increased each crop when applied alone, adding more than double as much to the crop of the 7th year, than it did to the first, when compared with the unmanured plot,—(see page 14.) And also on page 25, he says—"That the mineral constituents are indeed *becoming* deficient in several of the plots of our experimental fields, we have in our *collective* results *abundant* evidence." (*b.*)

Our 3d proposition is, that Salts of Ammonia, or best Peruvian Guano, fails just in proportion to the deficiency of these mineral manures, or agricultural salts, and that the full effect of Peruvian Guano can only be *insured* by combining it with these agricultural salts. For instance—on page 28—you will see that Salts of Ammonia—or, we may say Peruvian Guano alone, increased the crops to nearly 26 bushels per acre, or added nearly 9 bushels, when compared with the unmanured portion, while the mineral manure, with salts of ammonia—or we may say best Peruvian Guano with Agricultural Salts, produced 35½ bushels per acre, and added 18 bushels to the crop produced the same year, on the unmanured portion. If 300 lbs. of Salts of Ammonia, equivalent to 600 lbs. of Peruvian Guano, add but 9 bushels of wheat to the usual crop of 17½ bushels, and if on the same land, at the same time, 600 lbs. of Peruvian Guano, mixed with the Agricultural Salts, add 18 bushels to the 17 grown without manure—then it is manifest that 10 bushels of grain have been added to the acre by the mere addition of the Salts, to the Guano, *beside the 9 bushels added by the Guano alone*, (see plate, p. 28, Plot 10 and Plot 17)—But to use the author's own words, on page 26, he says:—"Thus it appears that although Plot 10 with ammoniacal salts only has given every year a considerable increase beyond that of the unmanured plot, yet the ammoniacal salts thus supplied were evidently *much in excess* over the minerals *available* in the soil; for in *every case* when minerals have been *also* liberally supplied, we have in corn, straw, or both, a considerably larger increase still. The effect of mineral manures for the growth of wheat is, then, in these cases, clearly shown. * We by no means suppose, however, that if some cheap source of ammonia were discovered, we might with impunity continuously exhaust our soils in the growth of corn by its means, but on the contrary fully admit that under such a course,

our mineral supply would soon become deficient." *(c)*

It was upon this principle that I purchased from you several tons of your agricultural salts, which you call *Renovator*, and employed your men to mix it for me, with about an equal quantity of Peruvian Guano, and sieve the whole together before applying it to the corn this spring, on an exhausted field. There can be no doubt with regard to the success of this, if we may judge from the present appearance of the crop.

Now *(a fortiori)* if in the productive soil of England, containing an "excess" of agricultural salts, they are required to insure the full effect of Guano, how much more are they required in our State, where the straw that contains these salts is seldom returned to one-tenth part of the cultivation in the form of stable manure. The agriculturists of our State may rejoice that they have found a specific in Guano—but they will find that it more rapidly exhausts the lands and will fail hereafter in proportion to the large crops now produced;* and it will fail altogether where the supply of salts is now only sufficient to produce a good crop, and no more. The supply of powder must correspond with the supply of shot—in purchasing either, reference should be had to the *proportion* on hand. Agricultural Salts alone, will often fail partially or altogether without Guano; and Guano will often be thrown away, unless combined with Agricultural Salts to insure its effects, and avoid its exhausting influence.

If any thing can be proven by a most laborious series of experiments, it is proven that the two together will always succeed. The amount of success must necessarily depend on the proper proportion of the salts, as this can only be ascertained by an analysis of the soil, and as many farmers prefer to risk a hundred dollars, rather than spend five dollars in an analysis, I will suggest a mode by which the proportion may be guessed at. Where the Agricultural Salts are *deficient* in a soil, the lower leaves of corn and other grain always "fire" and die during a dry season. But where the Salts are by excess—ALL of the leaves fire and are destroyed in the sun in a wet season. It will always be your interest to adhere strictly to the formula for the Renovator—and if the amount ordered by any *one* will warrant a special manufacture, it will be the *interest of the agriculturist* to direct the increase of any element of the Renovator that may be deficient in his soil.

Yours, respectfully,
DAVID STEWART, M. D.
77 North Eutaw street, Baltimore.
June 26th, 1852.

*Compare quotations *a*, *b* and *c*, and it will appear that the natural disintegration of SOME soils will supply the proportion of mineral Salts—but if ammonia is added, the annual supply from this source soon exhausted is without fallow.

The following notice is taken from the "*American Farmer*," of July 1st, 1852:

IMPORTANT TO THE FARMING COMMUNITY.—The communication of Dr. DAVID STEWART, embraced in the advertisement of Mr. *John Kettlewell*, accompanying this number, will receive the most profound attention of the reader. We are not accustomed, as our readers are aware, to speak otherwise than cautiously of the various compounds which are presented to the notice of the farmers as panaceas for all the evils to which their lands are liable—but when a gentleman so eminent in his profession as is Dr. Stewart, and so reliable in every respect, as a man, comes before the public in a recommendation of any matter as worthy of the attention of the farmer, we have no hesitation in expressing the conviction of our own minds, that there is no humbuggery about it. It will be seen that the Dr. presents the experiments of the most reliable character in England, and adds his own experiments to them, to prove their correctness, the results of which can not but be of the most beneficial character. From conversation with Dr. S. we know that these results are deemed by him of vast importance, and a new era may be now dawning upon the agricultural community.

Mr. *Kettlewell* will, no doubt, in the manufacture of his Salts, strictly adhere to the formula as commended by Dr. Stewart—his own character, and hopes of future success, will be a sure guarantee that he will do so—and we hope that full and fair trials will be given to the manure he now offers to the public.

Are not these experiments given in the English journals, and alluded to by Dr. Stewart, very similar to those said to have been made by a Professor in a city at the North—a manure from whose recipe is now offered to the public by manufacturers or dealers in that section?

To Mr. JNO. KETTLEWELL:

DEAR SIR:—Will you please have the same compound of your Agricultural Salts and Guano prepared in the same proportion and quantity for my poor corn field: I send you the order now, as it will improve by keeping, and it may be impossible for you to attend to it later in the season. You will see from the following extract of a letter from the tenant, that I am not making a fortune out of this field, although I am accomplishing my object, which is to reclaim and improve it without any outlay, but rather a nett profit *every* year:—*it must be constantly cultivated in corn*, or it would be overrun with sassafras and running briars. It is nearly a mile from the barn-yard, and if I had an abundance of that material "panacea," as some call it, I could not apply it in two days with only two men, as I manured it with "*the Compound*" last spring. I have a letter from a farmer in the same county, who used Peruvian Guano *alone*, and his corn was actually injured and not so good a crop where it was applied:—another in the same county assured me that the effect of 300 lbs. per acre on his corn was not observable; and while in Delaware last year, I went with an intelligent practical farmer to see both grass, and corn, where the Peruvian Guano had been applied in the same proportion, without the *least* effect. Yet in the face of all this evidence—although I never used a pound before—I have applied five tons of Peruvian Guano, to my own land [and part of it on the adjoining farm to the above failure]—and thus far with the most remarkable effect, with regard to *both* wheat and corn. The fact is, sir, that *the* valuable element of Peruvian Guano is Ammonia, and this Ammonia

is of no use except to carry the earthy matter to the plant—and it can be proven that more Ammonia *escapes* from the wheat plant than you ever apply in the form of Peruvian Guano. If, therefore, you have not the soluble earthy material to unite with the Ammonia, it is of no use except to give the corn. I cannot, however, always recommend the same proportion of inorganic salts, and sometimes the Peruvian Guano alone is the best manure. As a general rule, your compound of Salts and Guano is an excellent substitute for stable manure, but after all, good *cultivation* is the "sine qua non," and as my friend Mr. Benson is the prince of farmers in this respect, and our experiment of this year on both wheat and corn is so remarkably successful by his agency, I hope that if we succeed in establishing the principle, he may have not only half of the crops, but all of the credit. He says— * * * "which is a much better crop than we had 2 years ago on the same field *with seven acres more in tillage* THEN, than I had this year—the crop in 1850 was 281 bushels, this year 525, an increase of 244 bushels." Letter dated Nov. 8th, 1852. You will observe that this is the third crop of corn, and my object is to make the land pay for its own *improvement*, and cultivate it, without intermission, in corn, year after year.

Yours respectfully,
DAVID STEWART, M. D.
Jan. 24th, 1853. 77 N. Eutaw street.

BEAUFORT, 1st Nov. 1852.

Mr. John Kettlewell—Dear Sir: I have given your "Renovator" as many and as fair trials the past summer as I knew how, and have thought a little on the subject, and hope that you will excuse the liberty I take in giving you my opinion. I have tried it on 4 very different plantations, though almost solely on long stapled cotton, and the result has in every case been highly satisfactory, though I am unable to give you the particulars. I have found it on my own land fully equal to 32 cords of 8 ft. x4 ft. x4 ft. of green marsh grass, and also equal to 16 good ox-cart loads of cow-pen compost, each extending through different soils for some length, say ½ to 1-10 of a mile long, the land naturally strong, and rested 2 years. On another plantation it proved fully 30 to 50 per cent better than sixteen cords of green marsh, both sown the same day, land rather poor and old, but rested 2 years. The other trials were also decidedly favorable. The cotton caterpillar destroyed one of my crops very early, cutting off fully ⅔ of the cotton, so that I could form no estimate of its benefit there. What I meant particularly to say to you is, that as Guano has again failed upon long stapled Cotton, as far as I can learn, several tons having been used in this neighborhood, while the Renovator has, *I think*, fully sustained its former reputation, I would by no means advise you to recommend the mixture of Guano with your Renovator for *long stapled Cotton*, for while it materially increases the cost, it is likely to lessen, in the same proportion, its benefits. Upon Corn, I know nothing from experience, but *think* that there the mixture of the two would prove profitable, as Guano has paid well to one of my friends so applied. I have found one barrel per acre gave decidedly the best result, both relatively and positively, more seeming rather to do harm than good. The lively interest I feel in the success of my brother planters, and the hope of preventing expensive disappointments, must plead as my excuse for the above unsolicited opinions.

I would like you to keep for me about 200 to 250 barrels of the Renovator for the next crop of cotton, for which it will be wanted by or before 1st of April next. I do not wish you to publish this, but send it for your private information, in hopes that it may save you some disappointed buyers, and consequently, enemies. Yours respectfully, ROBT. CHISOLM.

To Mr. John Kettlewell—DEAR SIR:—You request my opinion of a compound of Potash and "Plaster," (sulphate of lime) as a manure for Tobacco Beds? I will give you the best authority in the world for its use. The ashes of the fresh leaves of the Tobacco plant may be distinguished from the ashes of almost all other plants, by the large proportion of Potash they contain.—Sulphuric Acid, Lime and Potash, compose sixty-three per cent of all the food of this plant (that it derives from the soil.) It is estimated that there was removed from every acre of cultivated land in Virginia, twelve thousand lbs. of alkalies, during the first century of its cultivation.

From the analysis I have made of your "Renovator," I should suppose it would be admirably adapted as a dressing of the tobacco *field*: all of the following elements of the ashes of Tobacco exist in the Renovator. If however the proportion of any of them in the soil is relatively greater, it would of course be good policy to save *it*, and substitute more of the rest, (where the order is sufficiently large to justify the special manufacture.)

I have just been reading a letter of the celebrated Baron Liebig, dated Giessen, May 14th, 1851—in which he says:

"I have, for 3 years past, on about 12 acres of the most barren soil near Giessen, by the use of a mineral manure, composed on the same principles, obtained, for all the crops which are cultivated in the district, results, which were declared, previous to my experiments, *to be impossible, by all the agriculturists who knew the land.*" * * *

Seventy parts of the ashes of fresh leaves of Tobacco contain—

Sulphate of Potash,	4.8
Potash as Chloride of Potassium,	6.3
Potash (or Potassa,)	9.5
Lime,	24.2
Phosphate of Lime,	16.6
Silicic Acid,	08.8
	70.2

Respectfully, DAVID STEWART, M. D.
March 20, 1852. 77 N. Eutaw st. Balt.

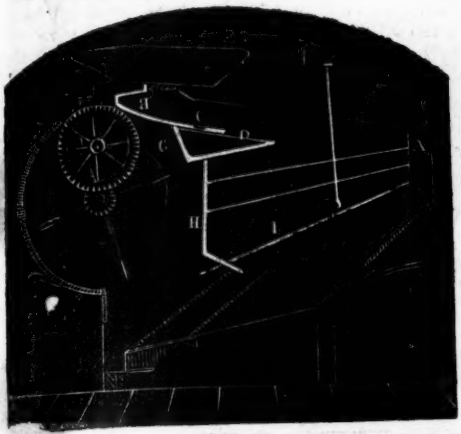
By the Editor of the American Farmer—May No. 1850, vol. ii, page 387:—

KETTLEWELL'S RENOVATOR.—We seized an occasion some days since of visiting the factory of this gentleman, having been invited so to do, and was very politely shown by him the various substances which comprise the constituent elements of his "*Renovator*"—most of which were undergoing the process of preparation: and from our knowledge of the properties of the several ingredients, we have no hesitation in affirming, that, if the proportions of each be as represented—and of that we have no doubt—his "Renovator" cannot fail to prove a most efficient improver of the soil. All the substances used in its composition, are essential to the healthful growth of the cultivated plants as well as to the perfection of their structures and fruits.

Mr. K. manufactures his own *ammonia*, which we examined and found excellent in quality. On inquiry as to the relative quantity of this salt used by him in the preparation of his "Renovator," we were assured, that it was ten per cent.—a quantity amply sufficient, and we were pleased to learn, that they converted it into the sulphate form in the process of their manipulations—the form which we most approve of, because it economises that highly nutrient principle, and thereby prolongs its usefulness. Though *ammonia* is not as active as a sulphate, as it is in the *carbonate* form, its benefits are more lasting, and will, in the course of a rotation of crops, yield a greater amount of products; and as a consequence, bring more money into the farmers' pockets.

His *bones*, which also enter into the composition of his fertilizer, are *not* previously boiled, a fact which increases their value, as they retain all their cartilagenous and other organic remains, which is not the case with those which may have been boiled, that operation depriving them of nearly all else save their phosphates feb 1-1t

J. MONTGOMERY & BRO., Inventors and Manufacturers of their celebrated Double Screen



ROCKAWAY WHEAT FANS.

Their shop is at 155 NORTH HIGH STREET, at Woodcock's Plough Manufactory, between Hillen and Gay streets, Baltimore. This Fan is fast growing into favor with the farmers, and ought to be in the barn of every one who wants to have his wheat cleaned with the least possible labor—it runs very light, and are said to clean one-third faster than any other Fan now in use. We have the names of several farmers who say they have chaffed from 125 to 200 bushels; and Mr. Paca, of Talbot Co., chaffed 225 bushels per hour. All who have used it, agree that the Premium Double Screen Rockaway Fan is the best ever gotten up. This Fan took the Silver Medal at the Maryland Institute Fair, and the first Premium at Easton, Talbot Co., Md; and the preeminanee at Upper Marlborough, Prince Georges Co. fair, all in 1852, and over what is said to be the best Fan made in Baltimore.

J. MONTGOMERY & BROTHER, would announce that, for the convenience of the farmers, they have appointed as their Agent, Mr. E. B. HARRIS, Commission Merchant, No. 4 Bowly's Wharf, who will attend to all business for us, in receiving orders and cash for Fans, &c. A liberal discount will be made to those purchasing to sell again. Feb. 1-tf

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Prepared for the American Farmer by J. W. & E. Reynolds.

For the past month we have to report sales of some three hundred hhds. of common ground leaf Tobacco, at prices of $3½ a $4, leaving very little of such description now on hand. The better qualities have not been so active; the few hhds. of fine crop that were in the hands of agents has been sold during the past month at prices fully as high as those obtained during the fall of the past year.—The stock now in the hands of agents is not over 800 hhds. We quote common ground leaf $3½ a $4; sound, $4½ a $5; fine, 5½ a $8; common crop, $3½ a 4; sound, $4½; good crop, $5 a 5½; fine, $6 a 9.

The transactions in Grain have been very light, as usual at this season of the year. We quote red Wheat $1.10 a 1.16; white, 1.15 a 1.25. Corn, white, 58 a 60c; yellow, 62 a 63c. Oats, 40 a 45. Rye, 82 a 83c, and Penn. 85 a 87c.

Flour, How. st. and City Mills $5.18 a 5.25, and firm; Pa. flour $5¼; family flour $6¼, and bakers' extra, to the trade, at $5¾—Rye Flour $4.31—Herrings, Eastern, $3¾ a $4¼—Cotton, demand fair, 670 bales mid. to mid. fair Va. Georgia and Gulf, sold at 10½ a 11c 6 mos.—Cattle, beef, $2½ to $4, equal to $4½ a 7¾ net, and averaging $3.12—Hogs, slaughtered, $7½ a 8, being an advance, having been sold during the past week at $7—Corn Meal, Balt. $3½; Pa. $3¼—Cloverseed, sales at $6½, with upward tendency—Hay, baled, $20 per ton; loose $18; Straw $12—Plaster $3½ per ton; ground, $1.12 a 1.25 per bbl.—Lime, Balt. co. 6c per bush.; if delivered on the waters of the Chesapeake, 8c.—Rice $3¾ a $4 per 100 lbs.—Sugars, N. O., new crop, $4½ a 6; old crop, Cuba, $4¼ a 5½; P. Rico, $4½ a 6¼—Whiskey, in bbls. 24½c., in hhds. 23½c—Wool, unwashed, 28 a 31c; pulled 38 a 40, and tub washed 38 a 42c—Bone Dust 50c per bush.

LIME FOR SALE, FOR AGRICULTURAL PURPOSES.—The Gas Light Company of Baltimore have for sale "OYSTERSHELL OR GASHOUSE LIME" in quantities to suit purchasers, at the low price of 3 cents per bushel.

Chemical analysis shows this Lime to be better adpted—as a fertilizer—to much of the soil of the State of Maryland, than "Stone Lime."

See Dr. J. Higgins' (State Agricultural Chemist) Report for 1852, page 36 to 41 inclusive. JOSEPH BROWN, Sec'y.

BALTIMORE, Sept. 14, 1852. Oct 1-1yr.

A SITUATION AS MANAGER, is wanted by a young man from the North, well acquainted with his duties, and will devote his time and attention to the service of his employer—he has no family. Unexceptionable references given. Apply to Mr. S. SANDS, office of the Farmer. feb 1-1t

PATENT RIGHT FOR SALE.

THE exclusive Right, for Charles, St. Mary's, Calvert, Dorchester, Worcester, Somerset, Talbot and Caroline Counties, in the State of Maryland, in the celebrated VERMONT STRAW CUTTER, invented by A. S. Macomber, of Benington, Vermont, which recently took the first premium for hand and horse power, at several State Agricultural Fairs, will be sold, together or separately, a bargain, as also the Cutters of various sizes, by addressing

S. J. RADCLIFF,
Washington Ageicultural Warehouse,
Jan 1-2t and Seed Store, 9th st. Washington, D. C.

BONE DUST AND POUDRETTE.

WARRANTED free from any mixture—no Glue extracted, or any Chemicals used, leaving the Bone Dust in its natural or pure state, weighing from 55 to 60 lbs. per bushel, at 50 cts. per bushel, in December, January and February—the balance of the year at 55 cents.

The Poudrette is as good as can be made, and for sale low.

☞REFERENCE.—D. M. Perine; G. V. Lurman; J. Tyson Jr., and J. W. Randolph, Baltimore County; Wm. B. Stephenson, and Lloyd Norris, of Harford County; William Baker Dorsey, and Dr. Allen Thomas, of Howard County; C. Stabler and William S. Bond, Montgomery County; A. N. Bernard, and Maj. Lee, Va.

☞Orders left at the American Farmer office will be attended to. Jan. 1 THOMAS BAYNES.

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THE "FARMER" has been eminently useful in bringing about the present improved system of agriculture, in the Middle and Southern States, and has been mainly instrumental in producing that attention to Agriculture as a science, which is having a most powerful effect in enriching our soils, exalting the profession of the farmer and planter, and staying the tide of emigration to the West.

[SAMUEL SANDS.] **SANDS & MILLS,** [SAM'L S. MILLS.

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